A STUDY OF VOLUNTARY TURNOVER OF AIR FORCE OFFICERS IN CRITICALLY-MANNED CAREER FIELDS

THESIS

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Abstract

Turnover in the Air Force has always been a subject of importance. As the costs associated with losing an individual are high, it would be in the best interest of an organization to understand the main reasons for voluntary turnover in order to facilitate retention. Current research has yielded the Unfolding Model of Voluntary Turnover developed by Lee, Mitchell, Holtom, McDaniel and Hill (1999), which identified 5 different paths people take as they voluntary leave organizations. This research effort tested to see if this model held true for a group of former Air Force officers from career fields experiencing low manning levels (32E, 33S, 61S, 62E, and 63A), and found that 47% of the participants fell into the predicted categories. However, more could be explainable with additional paths. With this data, specific areas in facilitating retention were addressed.

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IN CRITICALLY-MANNED CAREER FIELDS

I. Introduction

Overview

Few areas within organizational psychology have received as much attention as employee turnover (Cotton & Tuttle, 1986). Many organizations have invested a large amount of time and money to battle retention problems. The U.S. Air Force is no different than any other organization when it comes to retention problems. Retention remains a key concern for Air Force leaders who continue to look at ways to maintain a stable, quality force while making the operations tempo and pay and benefits "acceptable to our people" (Orban, 2000). Air Force Chief of Staff General Jumper has voiced that retention is one of his top concerns. Jumper said that the solution to retention issues is letting people know how important their jobs are to the nation and to let members know they are appreciated (Brubaker, 2000). Turnover generally requires that replacements be recruited, trained, and given time to gain proficiency on the job - all of which represent costs to the organization. As the costs associated with losing an individual are high, it would be in the best interest of an organization to understand the main reasons for voluntary turnover in order to facilitate retention. The purpose of this study is to tailor an

existing turnover model to Air Force needs in order to gain a better perspective on why people voluntarily leave.

Background

A study conducted by Ordner (2001) shows that certain officer career fields requiring critical skills are undermanned. The purpose of his study was to justify a Critical Skills Retention Bonus (CSRB). While this may or may not happen, Ordner's study does specify five critically-manned career fields: Civil Engineering (32E), Communications and Information (33S), Scientists (61S), Developmental Engineers (62E), and Acquisition Managers (63A). This study will concentrate on these specific career fields.

In the last hundred years, there have been literally hundreds of qualitative and quantitative investigations of turnover. Many of these investigations involve strategies an organization may take to improve retention. Other studies have involved modeling turnover in order to gain a better explanation on why individuals leave an organization. Lee and Mitchell (1994) presented a general theory of voluntary employee turnover based on earlier studies. Although individuals experience unique circumstances when they leave an organization, they appear to follow specific psychological and behavioral paths when deciding to leave. Lee and Mitchell incorporated various constructs for their model such as job satisfaction, individual values, shock, and image theory. With these constructs, Lee and Mitchell developed theoretical decision paths an individual may take in the process of voluntary turnover.

Lee, Mitchell, Wise, and Fireman (1996) tested the model on nurses who had voluntarily quit their nursing jobs at hospitals. They found that 63% of the nurses had

"classifiable quits." For Lee et al., classifiable quits were individuals that could be categorized on a specific path in the unfolding model. Lee, Mitchell, Holtom, McDaniel and Hill (1999) made several improvements to the model and tested it by sending surveys and receiving responses from leavers in Big 6 accounting firms in six major cities. With the new model, they found that 93% of their sample had classifiable quits. This study used this model for categorizing leavers from the Air Force.

The Unfolding Model of Voluntary Turnover used seven different constructs: shocks, scripts, image violations, job satisfaction, search behaviors, evaluation, and job offers (Lee et al., 1999). A shock was a jarring event, positive or negative, that initiated the psychological analysis involved in quitting a job. A script was a preexisting plan of action based on past experience, observation of others, reading, or social expectations. Image violations occurred when an individual's values, goals, and strategies for goal attainment did not fit with those of the employing organization or those implied by the shock. Job satisfaction was a measure of the extent to which the job provided the intellectual, emotional, or financial benefits desired. Search behaviors were the activities involved with looking for alternatives to a current job and the evaluation of those alternatives.

The Unfolding Model identified five different paths a person may take to voluntary turnover (Lee et al., 1999). Path 1 involved an individual who leaves because a shock caused him or her to act upon a preexisting plan of action in leaving; he or she leaves without considering current attachments to the organization as well as not considering alternatives. Path 2 involved an individual who leaves because a shock prompted him or her to reconsider his or her organizational attachment because image

violations have occurred; he or she leaves without a search for alternatives. Path 3 involved a person who leaves because a shock produced image violations that, in turn, initiated the individual's evaluation of both the current job and various alternatives. Path 4a involved an individual who leaves because of his or her low level of job satisfaction; he or she leaves without considering alternatives. Path 4b involved an individual who leaves because of low-level job satisfaction, but after searching for other jobs and evaluating other alternatives.

Research Focus

This research adapted Lee et al.'s (1999) questionnaire to categorize former AF officers on the Unfolding Model. The questions Lee et al. used for their questionnaire are presented at Appendix A. For this study, former Air Force officers were surveyed who separated from the mentioned critically-manned career fields in the last 10 years. The names for these leavers were compiled through network sampling and the USAF Academy Association of Graduates (AOG). For network sampling, fellow students in the Air Force Institute of Technology (AFIT) were requested to supply names of any individual they have known to have separated from the AF in the last 10 years from critically-manned career fields. The AOG submitted names of graduates from the US Air Force Academy who have separated from AF in the last 10 years from the critically-manned career fields. Upon receipt of the data, the leavers were then categorized with the Unfolding Model.

To ensure the validity of the categorization of the voluntary leavers, five independent judges who are graduate students in AFIT will review five random questionnaires and independently categorize each of them in one of the paths defined in

the Unfolding Model (Lee et al., 1999). The judges will be introduced to the categorization scheme through a brief training session. The judges will then be asked to practice categorizing an example questionnaire independently followed by a discussion of the results. Finally, the judges will independently categorize five random questionnaires, and these results will be compared to the categorization done by the interview team.

Summary

Lee et al.'s (1999) research suggested that people use different, distinct, and systematic processes, or paths, when leaving organizations. Therefore, this research effort will test to see if the model holds true to former Air Force officers and see where current members are in respect to the model. With this model, we will be able to gain a better understanding why members separate, and make recommendations on what issues to address.

II. Literature Review

Voluntary turnover has always been a topic of high importance for private sector organizations (Lee et al., 1999). It is no different for public sector organizations, in particular the Department of Defense. In fact, Air Force Vice Chief of Staff recently stated that retention is one of his top concerns (Orban, 2000). Voluntary turnover generally requires that replacements be recruited, trained, and given time to gain proficiency on the job – all of which represent costs to the organization. As the costs associated with losing an individual are high, it would be in the best interest of an organization to understand the main reasons for voluntary turnover in order to facilitate retention. During the past century, thousands of studies have been conducted on retention (Hom, Walker, & Prussia, 1992). Studies have involved modeling turnover in order to better understand why individuals leave. Other studies have theorized which strategies may work best for an organization to facilitate retention.

Until recently, turnover models have focused on specific ideas, such as job satisfaction, intentions of quitting, individual utility and values, personalities, or job alternatives. Some models have even attempted to mix existing models. Many of these models only modestly predicted turnover, at best, and did not necessarily involve all correlates of voluntary turnover. In the mid 90s, Lee et al. (1994, 1996, & 1999) introduced more contemporary models that were based on extensive research of previous models and contained multiple concepts and constructs that would affect voluntary turnover. The purpose of this chapter is to review some traditional models of voluntary

turnover, review some military studies of turnover, and introduce Lee and Mitchell's more contemporary model.

Traditional Models

Traditional models have many variables in common as shown in an integrated model at Figure 1. The integrated model incorporates many traditional models of known researchers such as Mobley (1977), Mobley, Horner, and Hollingsworth (1978), Mobley, Griffith, Hand, and Meglino, (1979), and Gerhart (1987 & 1990). Most traditional models have variables such as organizational characteristics, individual characteristics, and economic characteristics affecting an individual's job satisfaction. Organizational characteristics included variables such as existing job, environment, supervisor, co-workers, rewards, and organizational goals, values, and policies. Individual characteristics include variables such as one's age, tenure with the organization, cognitive abilities and skills, personal values, and family situation. Economic characteristics included variables such as labor market perceptions, unemployment rate, and probability of finding another job. These characteristics influenced an individual's perception of satisfaction (or dissatisfaction). If the individual was dissatisfied enough with the current job, he or she invoked thoughts of quitting. Following this, the individual evaluated the expected utilities of the present job and alternative jobs, as well as the costs and ease of moving to another job. With this information, the individual formulated his or her intentions to search for another job as well as intentions to stay with or quit the current job. If the individual intended to quit, then the individual voluntarily left.

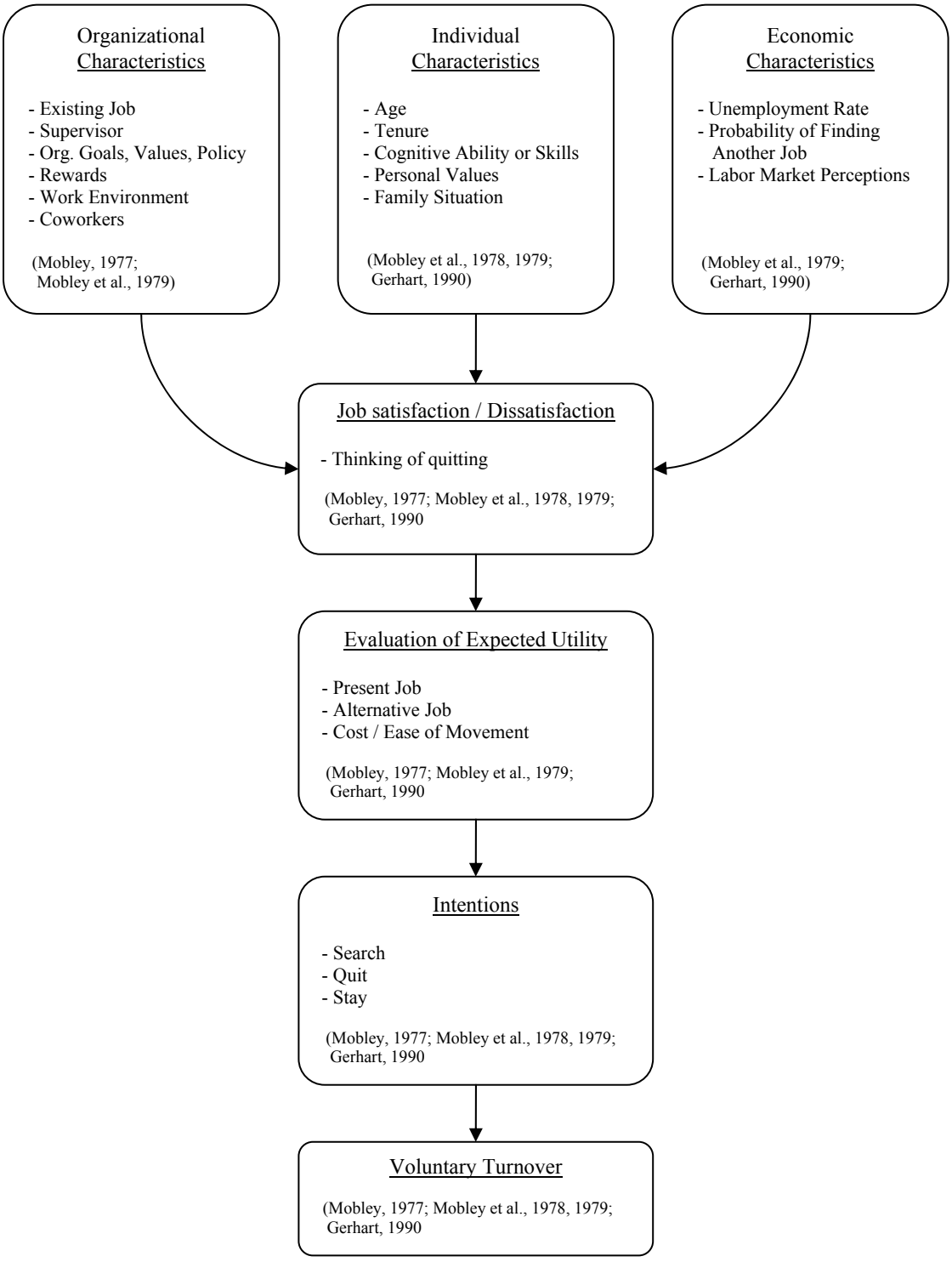


Figure 1: Integrated Model of Voluntary Turnover Based on Traditional Models

Mobley (1977) was one of the first to introduce a model that suggested that there are possible linkages in the relationship between job satisfaction and employee turnover. Mobley's model had "thinking of quitting" as the next logical step after experienced dissatisfaction and "intention to leave," after a number of other mediating steps, as the last step prior to quitting. Mobley's model portrayed a schematic representation of the withdraw process with possible "blocks" or steps an individual might take when quitting.

Mobley's (1977) model suggested that an individual simply proceeded linearly through a series of steps until the individual finally quits. An individual typically started the quitting process by evaluating his or her existing job. Based on this evaluation, there was an emotional state that reflected some degree of satisfaction or dissatisfaction. If dissatisfied, the individual then invoked thoughts of quitting. At this time, the individual proceeded to the next step, an evaluation of the expected utility of search and of the cost of quitting. This evaluation included an estimation of the chances of finding a job alternative and an estimation of the costs involved (i.e., costs of search, loss of seniority, and loss of invested benefits). If the individual perceived that there was favorable chance of finding another job and the costs were not prohibitive, the individual invoked intentions to search for alternatives and then actually searched for them. If alternatives were found, they were evaluated. This evaluation was then followed by the comparison of the alternatives to the present job. If the alternatives appeared favorable to the individual, the alternatives stimulated behavioral intentions to quit, followed by actual act of quitting. If at any time the opposite prevailed, then the individual either repeated previous steps or just accepted the present conditions. For example, if the individual did

not find any alternatives more favorable to the present job, then he or she may go back and search for more alternatives or reevaluate their expected utility.

Mobley, Horner, and Hollingsworth (1978) presented a more simplified version of Mobley's (1977) original withdraw decision process model and evaluated it with a sample of hospital employees. In this study, Mobley et al. reiterated that while the consequences of job dissatisfaction include thoughts of quitting, search, and evaluation of alternatives, the intention to quit is the only immediate precursor to actual quitting. In their research, Mobley et al. found that intentions to quit have a stronger correlation to turnover than job satisfaction. Mobley et al.'s simplified model suggested that the most probable consequence of job dissatisfaction is to elicit a cognitive process of thinking of quitting.

The design of this early study was consistent with the others that followed over the last 30 years in that Mobley et al. (1978) used individual survey measures. The questionnaire measured a variety of employee attitudes, perceptions, and goals. It included measures from previous studies, such as the Brayfield and Roth Index of Overall Job Satisfaction and the Job Descriptive Index (JDI) of facet job satisfaction. These data were collected at a specific time. Then, after some time (47 weeks), the turnover data were collected. The mean unemployment rate was 9.4% in the hospital labor market and 8.8% in the state during the period of the study; voluntary turnover was 10.3% at this time.

Beyond the notion that job satisfaction was an important component of turnover, Mobley et al.'s (1978) results were consistent with previous research that explored individual differences. They found significant negative correlations between tenure and

turnover, age and turnover, and overall satisfaction and turnover. They did find that the correlation between the intention to quit and actual turnover within one year had a significantly stronger relationship than the satisfaction-turnover relationship.

While it did bring to light that items other than job satisfaction affect turnover, Mobley et al.'s (1978) model was a simplified model. It did not capture impulsive behavior or changes in attitudes, intentions, or organizational conditions. In addition, Mobley et al. admitted that the process was not linear and included feedback loops that influenced the turnover process. For example, what was the effect of unsuccessful search on job satisfaction and intentions?

In an attempt to refine these early models of turnover, Mobley, Griffith, Hand, and Meglino (1979) conducted an extensive review of turnover literature and attempted to clarify the various constructs that had been suggested to explain the turnover process. As with previous research, Mobley et al.'s turnover analysis and reviews included individual demographic and personal factors, overall job satisfaction and turnover, organizational and work environmental factors, job content factors, external environment factors, occupational groupings, recently developed constructs, and multivariate studies. Variables for individual demographic and personal factors included age, tenure, sex, family responsibilities, education, personality, other personal considerations, and weighted application blanks. In this analysis, Mobley et al. found that while age is correlated with many other variables, it alone contributed little to the understanding of turnover behavior. However, for tenure, they found that length of service was one of the best single predictors of turnover and family responsibilities were associated with decreased turnover. Also, Mobley et al. found that overall job satisfaction was negatively

related to turnover. They also did find studies that showed a significant negative correlation between pay satisfaction and turnover as well as a negative relationship between satisfaction with supervisor and turnover.

Mobley et al.'s (1979) research isolated that job content factors as important turnover precursors, finding them significantly related to turnover along with perceived intrinsic value of work, motivation, and satisfaction. For the external environment, they found that the expectancy of finding an acceptable alternative position was significantly and positively related to the intention of quitting, and, in turn, the intention of quitting was significantly and positively related to turnover. They also found that organizational variables such as position level may be better predictors of behavior than demographic or personality variables.

Other explored variables and processes include behavioral intentions, organizational commitment, realistic expectations, and the centrality of work values. Mobley et al. (1979) found that behavioral intentions to stay or leave were consistently related to turnover behavior. Organizational commitment was significantly and negatively correlated to turnover, even more so than job satisfaction. Moreover, they found that while some studies alleged that turnover increases when an individual's expectations were not substantially met, more research was needed to substantiate this.

Drawing upon this research, Mobley et al. (1979) developed a conceptual model of the employee turnover process. Individual differences in perceptions, expectations, and values and the probable roles of the centrality of work values, beliefs regarding non-work consequences of quitting or staying, and contractual constraints are recognized. The perception and evaluation of alternative job options is given explicit treatment, and

the possible joint contribution of job satisfaction, job attraction, and attraction of attainable alternatives to turnover is proposed. Also, the intention to quit is considered to be the immediate precursor of turnover.

The model suggested that there were at least two types of intentions that precede turnover behavior, namely intentions to search and intentions to quit. The primary determinants of intentions were satisfaction, attraction of the expected utility of the present, and the attraction of the expected utility of alternative jobs. Satisfaction was seen as the affective response to the evaluation of the job, which was considered to be a function of perceptions of various aspects of the job relative to individual values. While satisfaction was present oriented, attraction was considered to be future oriented. Attraction was seen as being based on the expectancies that the job will lead to future attainment of various valued outcomes (Mobley et al., 1979).

The conceptual model suggested a need to distinguish between satisfaction and expected utility for the present job and alternative job as well as a need to consider non-work values and non-work consequences of turnover behavior. Mobley et al. (1979) suggested that integrative and multivariate longitudinal research is needed to better understand the psychology of the employee turnover process.

Gerhart (1987) conducted a study on the role of dispositional factors or traits as determinants of job satisfaction. Gerhart discussed problems with previous research and then examined the impact of changes in different measures of job complexity on job satisfaction. Previous studies have indicated that it was difficult to conclude from existing data that situational effects will supersede attitudinal consistency in most contexts. The sample of 809 was interviewed annually from 1979 thru 1982 and data was

used from 1979 and 1982 only. The individuals in the sample were out of school, older than 17 years old, worked more than 20 hours a week, and had been with his or her present employer for more than 2 months. Gerhart used the Job Characteristics Inventory as the first measure of job complexity. The second measure was derived from the Dictionary of Occupational Titles.

Gerhart (1987) found significant and positive correlation between 1979 and 1982 satisfaction. Gerhart found that situational changes do make a difference, even when crudely measured. Previous studies found little changes with adding changes in pay and status to their equation for job satisfaction. With reestimating the previous models using the National Longitudinal Surveys of Labor Market Experience youth cohort data, Gerhart found that changes in pay and status do seem to make a difference in employee job satisfaction.

These findings are important and could be useful for the job design area because longitudinal data were used, the research was conducted in a field setting and included a wide range of occupations, and both measures of job complexity were related to job satisfaction. Gerhart (1987) suggested that changes in situational factors such as job complexity and pay might have an important impact on job satisfaction. He believed that even if there was stability in the relative satisfaction of workers over time, the overall level of satisfaction might still be increased by well-designed personnel programs. He also recommended that until more compelling evidence for the impact of stable traits on job satisfaction is found, personnel selection based on traits might be premature.

Explicitly studying turnover, Gerhart (1990) noted that while there has been turnover literature on how the availability of alternative jobs influences turnover

intentions and behavior, there has been no study that has included measures of both general labor-market conditions and labor-market perceptions. Therefore his study provided the first test of a voluntary turnover model that incorporated both general labor-market conditions and perceived ease of movement, as well as the individual-level variables of general ability and experience. In existing models, voluntary turnover was a function of job satisfaction and perceived ease of movement and perceived ease of movement as a function of tenure, unemployment rate, unemployment experience, and cognitive ability.

Gerhart (1990) tested his final structural model of voluntary turnover with data taken form the youth cohort of the NLS. The initial sample of 12,686 was narrowed to 1,395 people with the stipulations that they were all out of school, were more than 18 years old, and worked more than 15 hours per week. The individuals were first interviewed in 1979 with annual follow-ups, and the data from the 1980 and 1981 interviews were used for this study. This sample was different from previous research in that they were geographically and occupationally diverse with over 100 different occupations and from 50 different regions.

Gerhart's (1990) model used the measures of tenure, unemployment rate, unemployment experience, cognitive ability, and job satisfaction. General job satisfaction was evaluated with a series of questions that were taken from the JDI and the Minnesota Satisfaction Questionnaire. These items included statements such as "job security is good" and "the pay is good" that were answered using a Likert scale. Intention to stay was measured by asking "How much longer do you intend to stay at this job?" Perceived ease of movement was measured by asking "If you were to leave your

current job, how difficult do you think it would be to find another job that was just as good?" The unemployment rate was the 1980 average monthly county unemployment rate obtained from the Bureau of Labor Statistics. Tenure was the number of years employed with the current firm. Cognitive or individual ability was measured with the Armed Forces Qualifications Test (AFQT). The AFQT is a composite of tests of arithmetic reasoning, word knowledge, paragraph completion, and numerical operations. Unemployment experience was calculated as the proportion of the preceding year during which a respondent was not employed but was looking for work.

Gerhart (1990) found that intention to stay was significantly correlated with the perceived ease of movement and job satisfaction. This relationship was consistent with the notion that job dissatisfaction was most likely to result in intentions to leave when employees perceive ease of movement to be high. Intention to stay was significantly correlated with unemployment rate which is consistent with the notion that the intention to stay was most strongly associated with voluntary turnover when the unemployment rate was low.

Gerhart (1990) admitted to possible limitations in the model. One possible limitation may be the relative young age of the sample (19-23 years old), however, this age group does account for 14% of the U.S. labor force and the most attractive group when hiring. Another limitation was the use of a single-item measure of perceived ease of movement. Multiple-item measure would provide more reliability and more coverage of the construct domain. Also, alternative measures of general labor-market conditions need to be examined to determine their relevance for different types of labor markets.

With so many studies that have shown many different correlates of turnover, some have tried to integrate many of these studies in order to better understand turnover behavior. Cotton and Tuttle (1986) conducted a meta-analysis of 120 sets of data and found many variables and classified them in three different correlates, being external, work-related, and personal. For external factors, Cotton and Tuttle found that perceptions of job alternatives and union presence had high correlation with turnover. For work-related factors, they found that pay, job satisfaction, and organizational commitment had high significance. For personal characteristics, they found that age, tenure, education, and behavior intentions had high significance. Knowing that many variables affect retention, many firms have undertaken different strategies to maintain valuable employees.

As mentioned previously, there were shortcomings to existing turnover models. Many models did not take into account real behavior that may not have been easy to quantify, such as impulsive behavior and changes in attitudes, intentions, or organizational conditions. An example of impulsive behavior was when an individual quits his or her job when an unsolicited job offer was presented. The individual quit without experiencing or evaluating typical turnover behavior, such as job dissatisfaction or intentions of quitting. Many models were tested on specific samples, and the results may or may not be applicable to other career fields. Some of the variables in many models used single-time measures, whereas more measures would more securely portray certain variables. For all models, longitudinal studies would make the models more robust.

Military Turnover Models

Military researchers have examined turnover based on these traditional models due to the fact that turnover behavior in the military is no different than in the civilian sector. Butler, Lardent, and Minor (1983), for instance, conducted a study of turnover on individuals going through Army officer training and education. Butler et al. proposed that people were less likely to quit their jobs when their motives were consistent with the demands of their organization – that is, they were satisfied that the organization's goals were aligned with their own. In bureaucratic and hierarchical organizational structures, the people more likely to separate were the ones with low levels of managerial motivation. In professional systems, those with low professional motivation were likely to separate. In sociotechnical systems, turnover was most likely among people with low group-oriented motives. Butler et al.'s hypothesis was that within typically hierarchical military training institutions, turnover among those preparing to become officers (managers) will be more frequent when the individual lacks the motives that have been found to be congruent with hierarchical systems. Individuals who separated during training will be characterized by lower initial levels of overall motivation to manage. Also, they will be characterized by more unfavorable attitudes toward authority, less competitiveness, more limited assertiveness, relatively little need for power, less desire to stand out from the group, and a more pronounced wish to avoid performing routine administrative functions.

Butler et al. (1983) studied two different groups: 502 cadets entering the U.S. Military Academy (USMA) and 251 officer candidates entering the Branch Immaterial Officer Candidate Course (BIOCC). For the USMA, 189 cadets separated during their 4

years for a 38% turnover rate. Butler et al. found that the voluntary leavers had an average lower overall score than graduates. Specifically, they found lower scores for assertiveness, power motivation, and the desire to perform routine administrative functions; however, the other four were not supported. For the BIOCC, 222 graduated and 29 separated. Butler et al. found that nongraduates had lower overall scores than graduates. Specifically, they found lower scores for competitive games and situations, assertiveness, and standing out from the group. Both studies supported the view that relevant motivational variables made a difference in turnover. Taken as a whole, these subscale result suggested that the dynamic of the two types of military training institutions may differ while still producing a type of output selectively calculated to foster managerial efficiency in a hierarchical system.

Butler et al. (1983) suggested that relevant motives and motivational fit deserve attention in turnover research and that the findings presented are consistent with a view that the prediction of performance and the prediction of turnover are intimately related. Some limitations included the specific environment of this study and the need for longitudinal studies. While not explicitly studied as a traditional model of turnover, Butler et al. suggested that the organizations characteristics (i.e. authority figures, competitive situations, assertive roles, imposing wishes, standing out, and routine administrative functions) would influence an individual's perception of satisfaction. These perceptions would then influence subsequent decisions to quit as the traditional models suggested.

In a more explicit use of the traditional turnover models, Youngblood, Mobley, and Meglino (1983) conducted a longitudinal analysis of the turnover process for 1,445

Marines. They based this effort on Mobley et al.'s (1979) conceptual model of the turnover process, which included the major integrative components of behavioral intentions to leave or stay, job satisfaction, expected utility of the present role or job, and expected utility of alternative roles or jobs outside the present organization. The purpose of Youngblood et al.'s study was to assess how these major integrative variables change over time and how they relate to turnover at different time intervals after organizational entry. The sample was tracked over a 4-year period and divided into five groups: those who left recruit training, those who left advanced training, those who left duty station, those who completed their enlistment, and those who reenlisted. Each of the five groups reported their expected utility of the Marine role, expected utility of alternative civilian role, net expected utility, job satisfaction, and behavioral intentions to complete enlistment and to reenlist. These data were collected at the beginning of training (Time 1), end of training (Time 2), and after assignment to duty station (Time 3).

Youngblood et al. (1983) found that those who left consistently scored lower on all measures than those who completed enlistment and those who reenlisted. They found that at Time 1, those who completed enlistment and those who reenlisted scored higher only on satisfaction and intention to reenlist than those who left. However, at Time 2, those who completed enlistment and those who reenlisted scored higher on expected utility of the Marine role, net utility, satisfaction, and intention to complete. The time effects for expected utility of Marine role, net expected utility, satisfaction, and intentions to reenlist were characterized by increases between Times 1 and 2, then decreases between Times 2 and 3.

Youngblood et al. (1983) claimed that these results demonstrated that variables conceptually relevant to the turnover process did differentiate among those who leave and those who stay and did change over time in a systematic fashion. The net expected utility (the difference between expected utility of the Marine role and expected utility of the civilian role) differentiated among the five groups at the beginning of training and systematically changed over time. The expected utility of the civilian role differentiated among the five groups at the beginning of training also and increased over time. Satisfaction was differentiated among the five groups at all Times and exhibited systematic and predicted changes over time.

Youngblood et al. (1983) recommended that leaders assess these variables prior to entry and select fewer individuals who have a lower probability of success. They also recommended periodic diagnostic measures to detect significant shifts in attitudes, perceptions, and intentions; since the findings showed that all groups showed a significant decline in attitudes towards the Marine Corps after completion of recruit training. Counter attrition strategies could then be implemented. Some limitations of this study included the specific nature of the sample (Marine enlistees) and the lack of any performance measures. Job performance was recognized to have conceptual relevance in the turnover process and future research should take this into account.

Even some of the most contemporary studies in a military environment have drawn on traditional models. Harrington, Bean, Pintello, and Mathews (2001) conducted of study of job satisfaction and burnout of Air Force Family Advocacy Program (FAP) workers. They theorized that respondents were more likely to intend to leave if they were emotionally exhausted, had lower levels if intrinsic job satisfaction, and were dissatisfied

with their salary and promotion opportunities. The purpose of their research was to examine burnout and job satisfaction as predictors of intentions to leave a job in a military setting. Harrington et al. based their research on Irvine and Evans (1995) model of turnover in which economic (pay, job market), structural (work environment), and psychological (individual and demographic variables) factors influence job satisfaction, which influences behavioral intentions to leave, which then influence actual turnover. Harrington et al. tailored their model to have psychological and stress factors influence job satisfaction.

Harrington et al. (2001) sampled 189 FAP staff members and stratified them to their specific positions, being Family Advocacy Officers (FAO), Treatment Managers, Outreach Managers, Nurses, and Administrative Assistants. FAOs had master's degrees in social work and were usually Air Force officers with responsibility for running the local FAP. Treatment Managers were social workers with responsibility for providing treatment to clients. Outreach Managers were social workers or psychologists who provided primary prevention services, such as parenting classes. Nurses provided home visiting services. Administrative Assistants have program, treatment, and administrative functions.

Harrington et al. (2001) found that FAOs had significantly higher levels of emotional exhaustion that did Administrative Assistants and had significantly higher levels of depersonalization than all others. Treatment Managers had higher levels of personal accomplishment than did Administrative Assistants and Nurses had higher levels of intrinsic job satisfaction than did FAOs or Administrative Assistants. FAOs were also more satisfied with salary and promotion opportunities than were Treatment

Managers or Administrative Assistants. Emotional exhaustion was predictive of how likely respondents were to report possible job turnover, however, personal accomplishment and depersonalization were not directly related to intention to leave. Job satisfaction was related to intentions to leave, specifically intrinsic job satisfaction and satisfaction with salary and promotion opportunities were related to decreased intentions to leave.

Some limitations included the fact that the data were cross sectional, so it was not possible to make causal inferences. Also, the population was specific to Air Force FAP staff members, so it is unknown how well this may generalize other populations. The model could be stronger by using other predictors of potential job turnover. While existing research recommended that enhancing job satisfaction and performance will help battle burnout and job stress, there were not many longitudinal studies that have tested to show if these interventions are effective in reducing job turnover or intention to leave.

Harrington et al. (2001) found that emotional exhaustion was strongly related to potential or job turnover, so reducing this should reduce job turnover. Supportive supervision and other interventions could enhance interpersonal relationships with colleagues and therefore help increase job satisfaction. Many of those who considered leaving or looked for a new job, discussed this with their supervisor, which suggested that there was an opportunity for working with these employees before they left. These employees may be particularly receptive to interventions designed to increase their likelihood of staying.

Contemporary Models

Lee and Mitchell (1994) examined theories about job satisfaction, individual values and expectations, intent to leave, and withdraw behavior. They found that many of the models had modest results at best and did not necessarily involve all correlates of voluntary turnover, as mentioned in the previous section. Therefore, Lee and Mitchell presented a general theory of voluntary employee turnover rather than center the model on the affective sentiments (such as job satisfaction and organizational commitment) as done traditionally. Their theory of the unfolding model of voluntary turnover contained concepts and constructs in which both market-pull and psychological-push approaches contribute to the behavior of those who voluntarily leave an organization. These forces resulted in employees taking one of four decision paths that may lead to voluntary turnover where each of these paths involved both psychological processes (psychological-push) and external events (market-pull). The theory described certain conditions in which these approaches do not contribute to the behavior of those who voluntarily leave an organization. In addition, the model was designed to capture conditions overlooked in traditional looks, such as unsolicited job offers.

Lee and Mitchell's (1994) model utilized the constructs of shock and image to better clarify the reasons of an employee's decision to quit. A shock to the system is a distinguishable event that jars employees toward deliberate judgments about their jobs. If sever enough, a shock may lead employees to voluntarily quit their job. Image suggests that people are constantly bombarded with information that could lead to changes in behavior. There is a set of three domain specific images: value, trajectory, and strategy. Value is a set of general values, standards, and individual principles that defined a

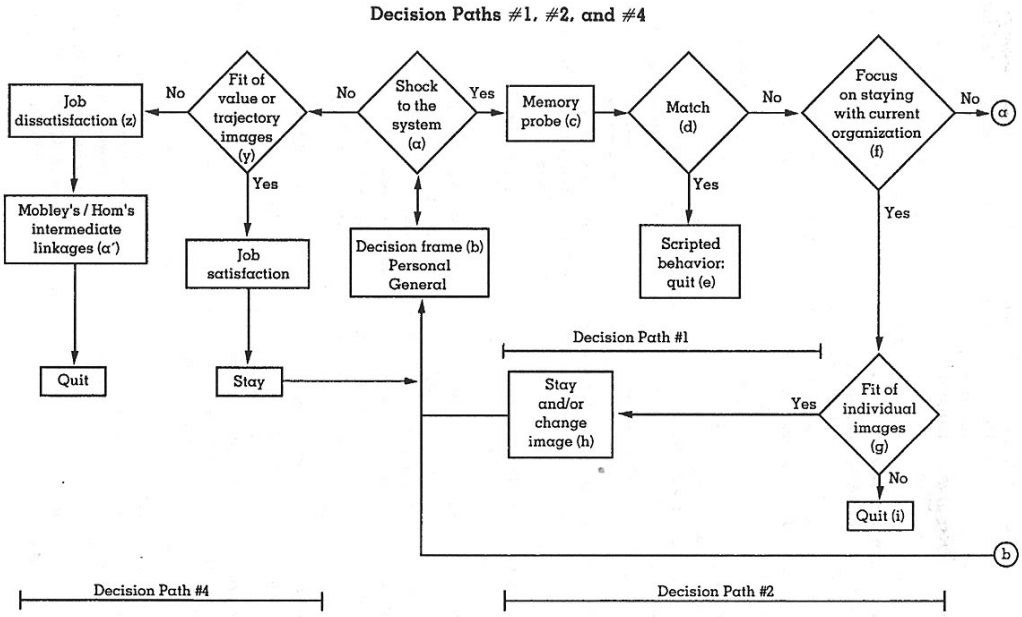
person. Trajectory is a set of goals that energizes and directs an individual's behavior. Strategy is a set of behavioral tactics and strategies that individuals believe to be effective in attaining their goals. People are constantly bombarded with information that could potentially lead to changes in behavior. For example, advertisements often suggest new purchases, articles and books commonly suggest ways to make millions or to save a marriage, and friends and relatives frequently suggest ways to become better people. With these constructs, Lee and Mitchell (1994) developed four decision paths one may take in voluntary turnover (see Figure 2).

As noted, the model allows for various external, unexpected, or random events to enter into the turnover process. The model recognizes and delineates different psychological foci and processes that can lead to turnover, such as habits, scripts, and schemas (Lee & Mitchell, 1994). Of special interest is whether an obvious response comes to mind in the form of past actions or rules that a person has generated from observing others or from knowledge he or she has acquired in other ways (Lee et al., 1996). These psychological mechanisms that result in routinized behaviors constitute a significant portion of a person's non-work and organizational life.

Lee, Mitchell, Wise, and Fireman (1996) tested the model by interviewing 44 nurses who had recently quit their jobs, and found that 63% had classifiable quits. For Lee et al. (1996), classifiable quits were quits that could be categorized as following a specific path in the unfolding model. Lee, Mitchell, Holtom, McDaniel and Hill (1999) made several improvements to the model and tested it by studying 301 leavers in Big 6 accounting firms in six major cities. With the new model, they found that 93% of their sample had classifiable quits (Lee et al., 1999). The model is presented in Figure 3.

Characteristics of the Decision Paths

	Decision Paths			
	1	2	3	4
Shock	yes	yes	yes	no
Sign of shock	+ 0 –	—	+ 0 –	na
Matching frame	yes	no	no	na
Evaluation of images	no	yes Fit judgment	yes Fit judgment	yes Fit judgment
Relative job dissatisfaction	no	yes	yes	yes
Search for job alternatives	no	no	yes	no / yes
Evaluate job alternatives	no	no	yes Fit judgment and rational analysis	no / yes Fit judgment and rational analysis
Quit decision	Automatic	Controlled	Controlled	Controlled / Controlled



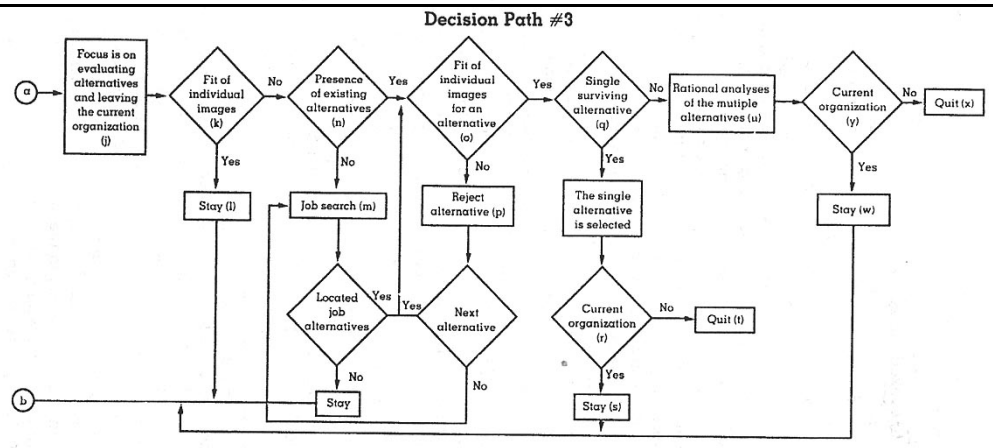
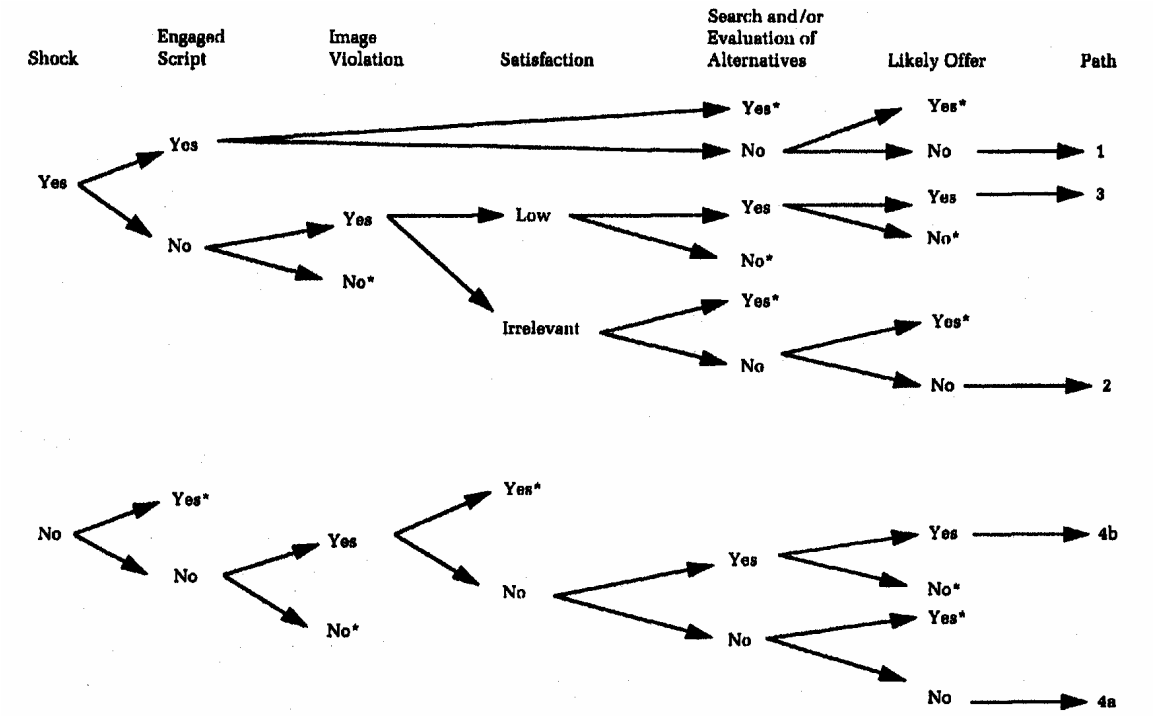


Figure 2: Lee and Mitchell's (1994) Early Model



[a] This figure includes the changes to the unfolding model added for the present study.
[b] An asterisk (*) indicates that the route is not classifiable and that it represents a theory falsification—a way in which an individual could leave an organization that would not be part of one of the model's paths.

Figure 3: Lee et al.'s (1999) Unfolding Model of Voluntary Turnover

The Unfolding Model of Voluntary Turnover, developed by Lee et al. (1999), identified five different paths a person may take to voluntary turnover. Path 1 involved an individual who left because a shock caused him or her to act upon a preexisting plan of action in leaving; he or she left without considering current attachments to the organization as well as not considering alternatives. Path 2 involved an individual who left because a shock prompted him or her to reconsider his or her organizational attachment because image violations have occurred; he or she left without a search for alternatives. Path 3 involved a person who left because a shock produced image violations that, in turn, initiated the individual's evaluation of both the current job and various alternatives. Thus, in this case, the individual left with search and evaluation. Path 4a involved an individual who left because of his or her low level of job satisfaction; he or she leaves without considering alternatives. Path 4b involved an individual who left because of low-level job satisfaction and after searching for other jobs and evaluating other alternatives.

Summary

Because of the relatively limited ability in the traditional models of turnover, the limited explanatory power of existing military turnover models, and the potential of the unfolding model, we applied it in this study as a step to see if it is effective in a military sample.

III. Methodology

Current research has yielded the Unfolding Model of Voluntary Turnover developed by Lee, Mitchell, Holtom, McDaniel and Hill (1999). The model suggested that while individuals leave organizations under unique circumstances, they appear to follow one of four psychological and behavioral paths when quitting. In 1996, Lee, Mitchell, Wise, and Fireman tested their original model and found that 63% of their sample fit into one of the four paths. In 1999, Lee et al. made several improvements to the model and tested it. With the new model, as shown at Figure 3, they found that 93% of their sample had classifiable quits.

Instrument Review

The items in the questionnaire used for this model were designed to tap the constructs of shock, script, image violation, job satisfaction, search, evaluation, and job offers. Appendix A summarizes the items and explains how an individual indicates a particular construct. A shock is a jarring event, positive or negative, that initiates the psychological analysis involved in quitting a job. The construct of shock was introduced in Lee and Mitchell's (1994) earlier study, which came from research of existing theories. For example, if an individual answered "yes" to "was there a *single* event that caused you to think about separating?" then that individual has indicated shock. A script is a preexisting plan of action and it can be based on past experience, observation of others, reading, or social expectations. Recent theories and research on framing and sense making have suggested that scripts are a larger factor than previously proposed in the

unfolding model. For example, if an individual answered "yes" to "if you *accepted* a job offer you had in hand, was it originally an unsolicited offer or inquiry" then that individual has indicated script. Image violations occur when an individual's values, goals, and strategies for goal attainment do not fit with those of the employing organization or those implied by the shock. The construct of image violation was introduced in Lee and Mitchell's earlier study, which came from research of existing theories. For example, if an individual answered with any degree of non-compatibility to "how compatible were your *personal* values/ethics with those of the Air Force" then that individual has indicated an image violation. Job satisfaction is a measure the extent to which the job provides the intellectual, emotional, or financial benefits an individual desires. The effect of job satisfaction on turnover is one of the best-documented empirical relationships in management literature and is a major variable in most turnover models. For example, if an individual answered with any degree of dissatisfaction to "in the Air Force, how satisfied were you with the supervision you received?" then that individual has indicated low levels of job satisfaction. Search behaviors are the activities involved with looking for alternatives to a current job and the evaluation of those alternatives. The constructs of search, evaluation, and job offers were introduced in Lee and Mitchell's earlier study, which came from research of existing theories.

Reliability. For reliable classification, the key criterion used in the study was the investigators' classification of which decision path each former employee had followed. Lee et al. (1999) applied tentative rules to 25 randomly selected survey responses. Only minor inconsistencies were found among the three authors. Drawing upon these inconsistencies, the group modified the decision rules and applied them to another 25

randomly selected survey responses. The result was 100% agreement among the three authors. A fourth judge, a doctoral student, also applied the rules for classification of the random sample and reached 100% agreement with the three authors.

For the reliability of the data, it was difficult to assess the reliability of variables that are measured with single item responses. For example, many of the answers must say "yes", so reliability cannot be assessed in traditional ways. Instead, the authors have to evaluate it. As explained in Appendix A, an appropriate response to any of the questions in a particular construct indicates that construct (Lee et al., 1999). For example, if an individual answered "yes" to "after your first thoughts of separating, did you evaluate any specific job alternatives before deciding to leave?" then the individual had indicated an evaluation of job alternatives.

Validity. For construct validity, the study did explain that there were high correlation coefficients between different items that were measuring similar constructs. The statistically significant ($p<.001$) correlations included the following: "Was the event expected?" had a correlation coefficient of -.91 with "Was the event unexpected?"; "How many acceptable alternative jobs did your search produce before you left the firm?" had a correlation coefficient of .56 with "How many total job offers did you have before you left your former firm?"; and "How compatible were your personal value/ethics with those of your former firm?" had a correlation coefficient of .64 with "How compatible were your professional values/ethics with those of your former firm?" Therefore, questions under the same construct were highly associated with one another and provided some evidence of correlation (Lee et al., 1999).

For content validity, Lee et al. drew upon their own previous research as well as others. Figure 2 depicts Lee and Mitchell's (1994) first model. The Unfolding Model contributed things that did not exist in other models. The model incorporated habits, scripts, and schemas into the process through the notion of matching frames. Matching frames or decision frames is the act of seeing if a shock can be dealt with by some sort of response that is appropriate and easy to access. Of special interest was whether an obvious response came to mind in the form of past actions or rules that a person had generated from observing others or from knowledge he or she had acquired in other ways (Lee et al., 1994). The model allowed for various external, unexpected, or random events to enter into the turnover process. The model also had great explanatory power and detailed specifications as well as having explicit recognition and delineation of different psychological foci and processes that could lead to turnover. Years later, Lee et al. (1996) tested the model on 44 nurses who left previous jobs and found that 63% could be explained with the model. After this, Lee et al. (1999) made improvements to model and designated the seven specific constructs as shown in Appendix A. Lee et al. (1999) tested the new model on 301 accountants and found that the model could explain 93% of the sample.

To help minimize potential for bias, the group recruited a volunteer to replicate the classification judgments made by the prior four judges. The volunteer had no prior connection to the study, researcher, or the researchers' institutions. The volunteer also reached 100% agreement with the prior judgments (Lee et al., 1999).

Since this was a retrospective study, recall bias could be a factor. However, studies have shown that the likelihood of recall bias in turnover studies is relatively low.

Research indicates that leaving an organization is a major personal event, which suggests there may be vivid recollections minimizing the risk of recall errors. The memory of this event should reside in episodic memory and be accurately recalled. The memory of the individual's leaving an organization as a self-based or voluntary event should be accurate.

Organizational Setting

Today's Air Force is a changing one and much different than before. These changes along with the growing opportunities in the civilian sector have "shocked" many members into eventually separating from the Air Force. As mentioned earlier, a shock is a mind-altering or jarring event. Some of these things may be on the macro level such as the Air Force having contractors fulfill more and more roles rather than active duty members executing them. With this trend, the perception among members may be that there are going to be fewer jobs available to military members. Some may also perceive that the Air Force is contracting specific skills that members will no longer be able to exercise. Another form of shock may be a member receiving a job offer from the civilian sector. The member may perceive that he or she is needed more, will make or money, or will use his or her skills more in the civilian sector. With these perceptions, many members will formulate a plan of action for their future that involves separation and some will act on them.

Participants

To validate the model of voluntary turnover, former officers who served in critically manned Air Force specialties and separated since 1990 were invited to participate. Specifically, those former Air Force officers who have voluntary separated

from the Civil Engineering (32E), Communications and Information (33S), Scientist (61S), Developmental Engineering (62E), and Acquisition Manager (63A) career fields were invited to participate. This sample included those who were no longer in the service and those who had become part-time Air National Guardsman (ANG) or Reservists. The process of survey approval and mailing is explained at Appendix D. Permission to conduct this study was requested through the Institutional Review Board at the Air Force Research Laboratory (See Appendices F-H).

The questionnaire asked a series of demographic questions to ensure that a cross-section of individuals that formerly filled these career fields participated and those that participated reflect voluntary separation (See Appendix B). Factors such as age (when leaving active duty and current), time served on active duty, gender, education (when leaving active duty and current), profession (when leaving active duty and current), ANG or Reservists, and whether or not one voluntarily separated were considered. Age was measured as a continuous variable (in years) where participants completed an open-ended item for both when they left active duty and when they completed the survey. Time served was measured as a continuous variable (in years) where participants completed an open-ended item. Gender was a categorical variable coded as a 0 = female or 1 = male. Participants indicated education level by reporting the highest level of education that they had attained when leaving active duty and then they completed the survey (e.g., 1 = some high school; 2 = high school diploma; 3 = associate's degree; 4 = bachelor's degree; 5 = master's degree; 6 = doctorate degree; and 7 = other). Former Air Force Specialty Code (AFSC) was a categorical variable coded as 1 = Civil Engineering (32E), 2 = Communications and Information (33S), 3 = Scientist (61S), 4 = Developmental

Engineering (62E), 5 = Acquisition Manager (63A), and 6 = Other. If 6 were coded, the participant completed an open-ended item by entering their former Air Force Specialty Code (AFSC). Participants completed an open-ended question regarding their current profession by entering their current profession in the space provided. Part-time military status was a categorical variable coded as a 0 = none, 1 = Air National Guard, or 2 = Reservist. Whether or not an individual voluntarily separated was a categorical variable coded as a 0 = no or 1 = yes. Lee et al. (1999) model was a study of voluntary turnover so only those who voluntarily separated would apply to the model.

Procedures

The model validation sample will be acquired from official sources and a network sampling technique. First, the director of information systems at the Air Force Academy Association of Graduates (AOG) provided a list of 481 names. This was an exhaustive list of names and addresses of Academy graduates who are no longer on active duty from the graduating classes of 1990 to 1995. Names and information were requested from the Air Force Personnel Center (AFPC), but the request was denied. In addition, a network sampling technique was used to supplement this list of participants (Lee and Weerahandi, 1994). That is, a group of graduate students that work in each of these career fields were asked to identify members that they knew had separated from the service. A brief pilot of this technique among a group of graduate students identified an additional 24 people that had separated from the service. The questionnaires were distributed via official mail. Included in this package was an official letter stating the purpose of this survey (see Appendix B), the survey (See Appendix B), and a business return envelope (See Appendix M).

Exactly 493 questionnaires were mailed out in mid-September 2002. There were 25 questionnaires returned due to incorrect mailing addresses. A total of 185 questionnaires were filled out and returned by mid-December 2002. There were three questionnaires thrown out; one cross-commissioned in the Navy and the other two were temporarily resigned attending medical school through the Air Force. The applicable sample size of this study was 465 separated personnel, with 182 participants. The 39% response rate for this study was significantly higher than the typical 20% response rate for most studies and helped the robustness of this study.

Sample

The average age of the participants when they separated from Active Duty was 28.2 years old. The average age of the participants at the time they completed the questionnaire was 31.6 years old, making the average time of separation 3.4 years. The participants served an average of 6.3 years on Active Duty. Males comprised 82% (149) of the sample and females comprised 18% (33) of the sample, which is a close representation of the Active Duty Air Force as a whole. At the time of separation, 64 participants had their bachelor's degrees, 117 had their master's degrees, and 1 was working on a doctorate's degree. At the time they completed the questionnaire, 50 participants maintained bachelor's degrees only, 124 have their master's degrees, 2 have their doctorate degrees, and 6 were working on their master's or doctorate's degrees. Each AFSC was well represented with 35 former Civil Engineering officers (32E), 34 former Communication and Information officers (33S), 31 former Scientists (61S), 44 former Developmental Engineering officers (62E), 32 former Acquisition officers (63A), as well as 6 former officers from other AFSCs. As far as current military status was

concerned, 79 participants were Reservists, 5 were in the Air National Guard (ANG), and 98 had no current military affiliation whatsoever. Three reported that they were full-time ANG or Reservist. For current civilian professions, 73% (132) reported that they had a job of a technical, managerial, or consultant capacity. Seven participants reported that they were investment bankers or financial analysts, five reported that they were doctors or lawyers, and three reported that they were pilots. Four reported that they worked in law enforcement, and four others reported that they were in sales, insurance, or real estate. Three reported that they were teachers of some sort, and three others reported that they were self-employed. Also, twelve reported that they were full-time homemakers or mothers. All participants reported that they voluntarily separated.

Measures

The questionnaire used to measure the study variables was based on Lee et al.'s (1999) questionnaire used in the Unfolding Model of Voluntary Turnover.

Shock. A shock is a jarring event, positive or negative, that initiates the psychological analysis involved in quitting a job (Lee et al., 1999). Shocks were measured with a series of items that were answered with 1 = yes or 2 = no and open-ended items. An individual indicated shock if he or she responded, "yes" to any of the following items: (a) Was there a *single* event that caused you to think about separating? (b) If yes, please describe the event. (c) If you *accepted* a job offer you had in hand, was it originally an unsolicited offer or inquiry? (d) Was there a particular event or series of particular events that were related to *legal* matters that influenced your decision to leave? (e) If yes, please describe.

Script. A script is a preexisting plan of action and it can be based on past experience, observation of others, reading, or social expectations (Lee et al., 1999). An individual indicated engaged script if he or she responded with agreement with any of the following questions: (a) If you *accepted* a job offer you had in hand, was it originally an unsolicited offer or inquiry (1 = yes or 0 = no, where "yes" indicates engaged script)? (b) I have left an assignment before for essentially the same reasons (i.e. very similar circumstances; respond using a 5-point Likert scale ranging from 1 = strongly disagree, 5 = strongly agree). (c) At the time I separated, I had already determined that I would leave the service IF a certain event was to occur (e.g. being accepted to graduate school; respond using a 5-point Likert scale ranging from 1 = strongly disagree, 5 = strongly agree).

Image violations. Image violations occur when an individual's values, goals, and strategies for goal attainment do not fit with those of the employing organization or those implied by the shock (Lee et al., 1999). An individual indicated an image violation if he or she indicated disagreement (where agreement was assessed using a 5-point Likert scale ranging from 1 = *strongly disagree or not compatible* to 5 = *strongly agree or compatible*) to any of the following items: (a) How compatible were your *personal* values/ethics with those of the Air Force? (b) How compatible were your *professional* values/ethics with those of the Air Force? (c) How compatible were your *personal* goals with those of the Air Force? (d) How compatible were your *professional* goals with those of the Air Force? (e) If I had stayed, I would have been able to achieve most of my *career* goals. (f) If I had stayed, I would have been able to achieve most of my *personal*

goals. (g) In the Air Force, my *career* was progressing as I expected. (h) In the Air Force, my *personal goals* were progressing as I expected.

Job satisfaction. Job satisfaction is a measure the extent to which the job provides the intellectual, emotional, or financial benefits they desire (Lee et al., 1999). Job satisfaction was measured with eight items where respondents indicated their satisfaction on a 5-point Likert scale (1 = very dissatisfied, 5 = very satisfied). An individual indicated job dissatisfaction if he or she responded with 1 or 2 to any of the following items: "In the Air Force, how satisfied were you with: (a) the supervision you received? (b) the Air Force as an employer? (c) career opportunities? (d) financial rewards? (e) your coworkers? (f) nature of the work? (g) recreational activities? (h) fringe benefits(e.g. leave, holidays, medical plan, retirement plan)?" Also, participants indicated the same in following items: "In the Air Force, how satisfied were you with the work environment related to: (i) amount of work assigned? (j) competitive pressures? (k) autonomy of work? (l) pressures at work? (m) time flexibility?"

Search behaviors. Search behaviors were the activities that involved looking for alternatives to a current job and the evaluation of those alternatives (Lee et al., 1999). (a) Did you have at least one job offer in hand when you decided to separate (1 = yes or 0 = no, where "yes" indicates search)? (b) If you did not have a job offer in hand when you actually left, did you believe that getting an offer was very likely (1 = yes or 0 = no, where "yes" indicates search)? (c) Before you left the Air Force, how comprehensive was your job search for another job (e.g. did you gather lots of information on other job opportunities or search on a daily basis; respond using a 5-point Likert scale ranging from 1 = no search to 5 = very comprehensive search)?

Evaluation of job alternatives. An individual indicated the evaluation of job alternatives if he or she responded with 1 to any of the following items. Responses for all items were 1 = yes or 0 = no. (a) After your first thoughts of separating, did you evaluate any specific job alternatives before deciding to leave? (b) After your first thoughts of separating, did general job availability affect your decision to leave (e.g., you were pretty sure you could get another job, though you did not have a specific job in mind)? (c) In making your final decision to separate, did you seriously consider non-work options (e.g., staying at home, returning to school, taking a sabbatical)? If yes, please indicate the type of non-work option you actually pursued.

Job offer. An individual indicated job offers if he or she responded with 1 to any of the following items. Responses for items (a) thru (e) were 1 = yes or 0 = no. Responses to items (f) and (g) were open-ended. (a) Was an unsolicited job offer or inquiry the event that first led you to think seriously about separating? (b) Did you have at least one job offer in hand when you decided to separate? (c) Did you ultimately accept a job offer that you had in hand (please answer only if you had a job offer in hand)? (d) If you accepted a job offer you had in hand, was it originally an unsolicited offer or inquiry (please answer only if you had a job offer in hand). (e) If you did not have a job offer in hand when you actually separated, did you believe that getting an offer was very likely? (f) How many *acceptable* alternative jobs did your search produce before you left the Air Force? (g) How many *total* job offers did you have before you left the Air Force?

Path Identification

The Unfolding Model of Voluntary Turnover, developed by Lee et al. (1999), identified five different paths a person may take to voluntary turnover (Figure 3). Path 1 involved an individual who left because a shock caused him or her to act upon a preexisting plan of action in leaving; he or she left without considering current attachments to the organization as well as not considering alternatives. Path 2 involved an individual who left because a shock prompted him or her to reconsider his or her organizational attachment because image violations have occurred; he or she left without a search for alternatives. Path 3 involved a person who left because a shock produced image violations that, in turn, initiated the individual's evaluation of both the current job and various alternatives, thus leaving with search and evaluation. Path 4a involved an individual who left because of his or her low level of job satisfaction; he or she leaves without considering alternatives. Path 4b involved an individual who left because of low-level job satisfaction and after searching for other jobs and evaluating other alternatives. Starting with Shock, an individual indicated the path he or she had followed given an appropriate response as indicated in the Measures section.

Categorization Validation

For the model to be valid, a high percentage of respondents needed to follow an exact path in the model. For categorizing leavers, Lee et al. (1999) developed a set of decision rules that any investigator who might wish to study the unfolding model could apply. Initially, Lee et al. applied their own decision rules to 25 random survey responses and found minor inconsistencies. Drawing upon these inconsistencies, the authors modified the decision rules and applied them to a separate 25 random survey

questionnaires. The three authors and an additional judge reached 100 percent agreement with the categorization of this sample. To help minimize potential for bias, the authors recruited a volunteer to replicate the classification judgments. The volunteer, who had no prior connection to the study, the researchers, or the institution, also reached 100 percent agreement with the prior judgments.

This procedure was replicated for this study (see Appendix C). To ensure the validity of the categorization of the voluntary leavers, five independent judges who were graduate students in systems and engineering management program reviewed five random questionnaires and independently categorized each of them in one of the paths as shown in the unfolding model (Lee et al., 1999). The judges were introduced to the categorization scheme through a brief training session. This training session included a discussion of the following: (a) the project, (b) the definition of each construct, and (c) the categorization of the five paths a leaver might take in voluntary turnover. The judges were then asked to practice categorizing an example questionnaire independently followed by a discussion of the results. Finally, the judges independently categorized five random questionnaires, and these results were compared to the categorization done by the interview team.

Summary

Lee et al.'s (1999) research suggested that people use different, distinct, and systematic processes, or paths, when leaving organizations. Therefore, this research effort will test to see if the model holds true to former Air Force officers. With this model, leaders will gain a better understanding why members separate, and make recommendations on what issues to address.

IV. Results

This chapter describes the turnover questionnaire results and the test of the overall unfolding model of voluntary turnover. A qualitative analysis of the results of the turnover questionnaire will also be discussed.

Test of the Unfolding Model of Voluntary Turnover

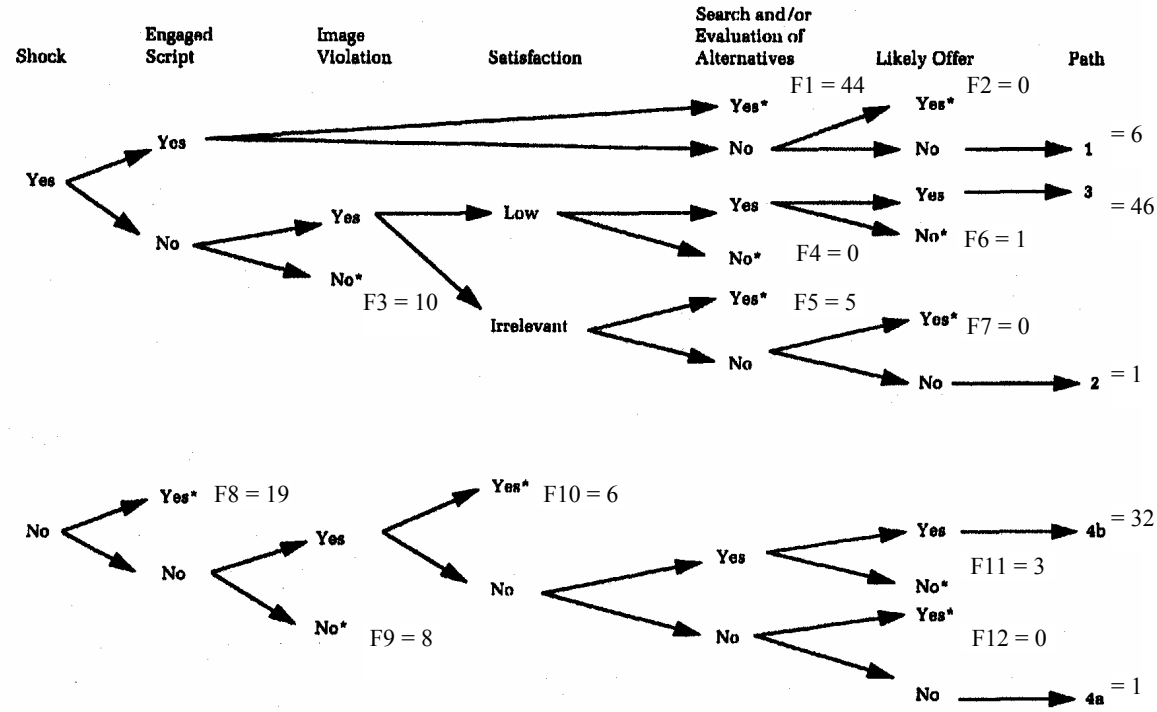
Part III outlined how different variables in this study were measured and the five paths participants should be classified in for the model. Based on the questionnaire, 113 participants experienced some sort of shock before separating from the Air Force. This ranged from things like birth of a child to not getting a desired assignment. Before separating from the Air Force, 69 participants engaged in some kind of script, and 152 experienced some sort of image violation. While on Active Duty, 151 participants experienced low levels of job satisfaction, and 171 searched for and evaluated other job opportunities in the civilian sector. Also, 159 participants had job offers before separating from the Air Force.

Of the 182 participants, 86 (47.25%) were classifiable into one of the five paths in Lee et al.'s (1999) Unfolding Model of Voluntary Turnover. For those 86 participants who were classifiable, 6 participants (7%) were classified into Path 1, 1 participant (1.2%) was classified into Path 2, 46 participants (53.5%) were classified into Path 3, 1 participant (1.2%) was classified into Path 4a, and 32 participants (37.2%) were classified into Path 4b. These data were similar to Lee et al.'s study in that Path 3 (64.2%) had the

highest percent of the classifiable personnel, Path 4b (21.2%) had the second highest, and Paths 1,2, and 4a had relatively small percentages (2.8%, 3.3%, and 3.8%).

If a participant fell into an unclassified path, then that represented a theory falsification for Lee et al. (1999) in that an individual could leave an organization that would not be part of one of the model's paths. Other than the 5 paths classified by Lee et al., there are 12 other not classified paths as shown at Figure 4.

In this study, the previously not classified paths were designated as F1 to F12 to see where all participants fell with respect to the entire Unfolding Model of Voluntary Turnover. Path F1 involved an individual who experienced shock, engaged in a previous plan of action, and searched and evaluated job alternatives before separating from the Air Force. Path F2 involved an individual who experienced shock, engaged in a previous plan of action, did not search for alternatives, but did receive a job offer before separating. Path F3 involved an individual who separated after experiencing shock only; he or she did not act on a previous plan of action or experience an image violation. Path F4 involved an individual who experienced shock, an image violation, low levels of job satisfaction, and did not search for alternatives before separating. Path F5 involved an individual who experienced shock, an image violation, and then separated after searching for and evaluating job alternatives. Path F6 involved an individual who separated after experiencing shock, an image violation, low levels of job satisfaction, job alternative search and evaluation, but not a job offer. Path F7 involved an individual who separated after experiencing shock, an image violation, and a job offer. Path F8 involved an individual who left after only engaging in a previous plan of action. Path F9 involved an individual who separated for no apparent reason. Path F10 involved an individual who



[a] This figure includes the changes to the unfolding model added for the present study.
[b] An asterisk (*) indicates that the route is not classifiable and that it represents a theory falsification—a way in which an individual could leave an organization that would not be part of one of the model's paths.

Figure 4: Former Air Force Officers Categorized in Other Paths

experienced an image violation and low levels of job satisfaction before separating. Path F11 involved an individual who experienced an image violation and left after searching for and evaluating job alternatives. Path F12 involved an individual who separated after experiencing an image violation and a job offer.

No participants fell into Paths F2, F4, F7, or F12. The 96 participants that did not fall into one of Lee et al.'s (1999) five specific paths did fall into eight other paths. The most participants fell into Path F1 with 44. The second most participants fell into Path F8 with 19. Path F3 included 10 participants, Path F9 included 8, Path F10 included 6, Path F5 included 5, Path F11 included 3, and Path F6 included only 1.

Qualitative Data

In the questionnaire, there were two open-ended questions for the participants to fill out to express why they separated from the Air Force and what the Air Force could have done to keep them in. Item 25 asked the participant to describe the event, if applicable, that caused him or her to think about separating. Item 40 asked, "Why did you leave the Air Force? Was there anything the Air Force could have done for you to change your decision to leave the service?" All participants filled out responses to both of these items, and almost all participants named specific reasons why they separated. Reasons ranged from family situations to financial reasons, as shown at Table 1.

In this study, individual's reasons for separating from the Air Force are summed up into 16 different themes: Promotion, Meritocracy, Compensation, Benefits, Permanent Change of Assignment (PCS)/Assignment, Family, Mother, Dissatisfied with Policy/Bureaucracy, Dissatisfied with Job/Career, Temporary Duty (TDY) Tempo, New Career, No Undergraduate Pilot Training (UPT), Not Valued, Ethics/Standards,

Table 1: Summary of Common Themes on why Former Air Force Officers Separated

Theme	n*	%**	Example Response to Open Ended Questions
Promotion	43	23.63	"Career progression was always going to be determined mainly by time in service, no realistic opportunity for grade advancement based purely on performance, ability, and merit."
Meritocracy	19	10.44	"I wanted a career where compensation is more closely linked with performance, not everyone getting the same pay when some are high-achievers, low-achievers, etc."
Compensation	34	18.68	"I wanted more pay - if my skills are in demand, then pay me accordingly."
Benefits	15	8.24	"Health care was atrocious, and seemed unlikely to improve as tri-care came online,"
PCS / Assignment	63	34.62	"I wanted more influence on my next assignment and location,"
TDY Tempo	16	8.79	"I want to be home while my kids are growing up. The potential for Korea for 1 year and other 90-180 day deployments is more than I can justify in my mind. I was deployed twice while on AD."
Family	60	32.97	"Although I knew I'd never do 20 years, they forced my hand with an unaccompanied PCS to Korea only about a year after my last PCS. My family wasn't ready for that."
Mother	10	5.49	"I wanted to be with my daughter for a few years while she was small. The AF didn't have an option for taking an extended leave of absence, so I separated."
Dissatisfied with Policy / Bureaucracy	35	19.23	"Many positions of importance where analysts work in the AF are held by rated officers. I could no longer see a career an organization that has so much bureaucracy."
Dissatisfied with Job / Career	39	21.43	"I felt as a junior officer in the science field, the Air Force never gave me enough opportunities for hands on technical work. The contract management positions I was given suffered because of this."
New Career	20	10.99	"I wanted to pursue medical school, so I separated, with a job offer in hand, to pursue med school because I was going to be required to do an unaccompanied PCS assignment."
Not Valued	17	9.34	"Low promotion potential for my career field; this gives impression that my work was not valued by AF."
Ethics / Standards	11	6.04	"The Kelly Flinn episode. When the AF gave her a free pass, it was the first time I ever felt embarrassed to be in uniform."
Dissatisfied with Leadership	19	10.44	"I was very unhappy with senior leadership and what was portrayed as important in AF life!"
No UPT	17	9.34	"The entire class of 1993 (Academy) were promised if physically qualified we would go to UPT. The AF, in all its "integrity" didn't ever fulfill its commitment to us."
Leaving from the Beginning	3	1.65	"I finished my freshman year at the Academy and decided I would only fulfill my initial 5 year commitment."

* Number of Participants Who Cited this Theme.
** Percent of Participants Who Cited this Theme

Dissatisfied with Leadership, and Leaving from the Beginning. All participants cited at least one theme, while most cited multiple themes. The Promotion theme involved an individual who separated because he or she was dissatisfied with the rigidity of the Air Force promotion system up to the rank of Major, the dismissal of Below the Zone (BTZ) promotion to Major, and/or the perceived lower and harder chances of making Colonel and above as a non-pilot in the Air Force. The rigidity of the Air Force promotion system referred to the fact that all officers begin as Second Lieutenants, get promoted to First Lieutenants after 2 years, get promoted to Captains after another 2 years, and get promoted to Majors after another 4-5 years. Examples of participants' responses that involved the Promotion theme included: "Career progression was always going to be determined mainly by time in service, no realistic opportunity for grade advancement based purely on performance, ability, and merit," "The elimination of BTZ to Major was, in my opinion, a significant de-motivator," "It's a pilot's Air Force, I didn't want to compete against pilots for the same promotion opportunities. It would have felt more fair if I could compete only within my career field, like enlisted do." Forty-three participants (23.6%) cited the Promotion theme as a factor in separating.

The Meritocracy theme involved an individual who separates because he or she was dissatisfied with the way that all officers, regardless of profession or performance, are promoted up to the rank of Major the same way. Some responses included: "There was no incentive to work hard and move ahead of your peers. I wanted to be recognized for my contributions being greater than my peers," "I wanted a career where compensation is more closely linked with performance, not everyone getting the same

pay when some are high-achievers, low-achievers, etc." Nineteen participants (10.4%) separated due to the perceived lack of Meritocracy in the Air Force.

The Compensation theme involved individuals who were dissatisfied with the pay system. Many believed "the simple fact that no matter how well I performed or how hard I worked, I could never get promoted early or make more money," "I wanted more pay - if my skills are in demand, then pay me accordingly." Thirty-four participants (18.7%) were dissatisfied with compensation in the Air Force. The Benefits theme involved individuals who were dissatisfied with fringe benefits such as health care and retirement plans. Some believed that "health care was atrocious, and seemed unlikely to improve as tri-care came online," "No 401k - style retirement plan yet." Fifteen participants (8.2%) were dissatisfied with the fringe benefits the Air Force had to offer.

The PCS/Assignment theme involved individuals who were dissatisfied with the inflexibility of their next assignment or current assignment, or with having to move every 2 or 3 years. For example, "I wanted more influence on my next assignment and location," "I wanted a lifestyle that I could control more with regards to where my family lived and when we moved. Moving every 3 years was a dissatisfier when I looked at the possibility of providing my kids an opportunity to grow up in a single location." Sixty-three participants (34.6%) cited the PCS/Assignment theme as a factor in separation. The TDY tempo theme involved individuals who were unhappy with the frequency of the amount of TDYs they have had and the perceived amount in the future. For example, "I want to be home while my kids are growing up. I can't do that while on AD. The potential for Korea for 1 year and other 90-180 day deployments is more than I can justify in my mind. I was deployed twice while on AD." Sixteen participants (8.8%)

were dissatisfied with the perceived TDY tempo. The Family theme involved individuals who reported family situations that caused them to separate. For example, "I wanted to be able to live in the same house as my Active Duty husband. He started UPT at the time of my separation and I wasn't willing to endure the probable 2 years of separation, especially for a career that I was disenfranchised with." Sixty participants (33%) cited the Family theme as a factor in separation. The Mother theme involved individuals who reported that she specifically separated to be a full-time homemaker. Ten participants (5.5%) separated in order to stay home with their families.

The Dissatisfied with Policy/Bureaucracy theme involved individuals who were dissatisfied with certain Air Force policies and/or did not approve of the perceived bureaucratic nature of the Air Force as an organization. Many believed that "many positions of importance where analysts work in the AF are held by rated officers. I could no longer see a career an organization that has so much bureaucracy. I want to make a difference where I work, to bring about change when warranted and be recognized for my accomplishments," "Most engineers in the AF work in the acquisition world, which is a non-technical (never the chance to develop into a real engineer) bureaucratic mess. The slow moving, overstaffed, paperwork intensive environment is completely unsuited to young, bright and aggressive junior officers." Thirty-five participants (19.2%) reported their disdain for current Air Force policies and perceived bureaucratic nature.

The Dissatisfied with Job/Career theme involved individuals who were unhappy with their current job and/or the perceived path their career was following. For example, "I felt as a junior officer in the science field, the Air Force never gave me enough opportunities for hands on technical work. The contract management positions I was

given suffered because of this. This Air Force practice was incompatible with my personal/professional goals, and, in my opinion, detrimental to the successful operation of the AF," "I felt the Air Force backed me into a corner. They sent me to AFIT, educated me very well, encouraged me to gain Information Technology experience, then told me that wasn't what they were looking for - they wanted officers with "mud on their boots." As an O-3, I was already beginning to think I would not be competitive for O-5." Thirty-nine participants (21.4%) were not happy with their job situation. The New Career theme involved individuals who separated to pursue a different career such as in the medical, legal, or airline professions. Twenty participants (11%) went on to pursue a new career.

The Not Valued theme involved individuals who perceived that their skills or performance were not valued by the Air Force. For example, "Low promotion potential for career field, this gives impression that my work was not valued by Air Force," "Acquisitions generally not respected as career field - attitude was that everything could be outsourced, or only required contracting officer to monitor complicated technical programs." Seventeen participants (9.4%) felt they were undervalued by the Air Force. The Ethics/Standards theme involved individuals who perceived that ethics were not as highly valued as they should be and/or that standards were too low. For example, "I was told by the Base Civil Engineer and Wing Commander that if I took a particularly tough job to prepare the wing for an Operational Readiness Inspection (ORI) then I could move to another job I wanted. I worked 80 hours/week preparing for an ORI, did a great job, and was told I was too valuable to the wing to move to the new job. They didn't keep their promise. I did. No integrity on their end. They were just looking out for their own careers, not my career or my family." Eleven participants (4%) cited the

Ethics/Standards theme as their reason for separating. The Dissatisfied with Leadership theme involved individuals who were dissatisfied with their supervisor and/or the quality of leadership that could be found in the Air Force. For example, "I was disgusted by some officers' (my example is from pilot - F-15C squadron) behavior – it was more appropriate for 19 year old college student (spoiled student, at that) than an officer and leader in the squadron. I was rarely impressed by AF leadership - including women - at the flag level. I was under whelmed by the lack of the AF to make decisions - especially in a profession that professes/stresses leadership. Too many persons seemed afraid to make a decision, especially if they were concerned about implications to their careers." Nineteen participants (10.4%) were unhappy with leadership they experienced.

The No UPT theme involved individuals who separated because they were not given the opportunity to attend UPT. For example, "I joined to be a pilot. Due to cutbacks in 1994, I was not offered an UPT slot." Seventeen participants (9.3%) were not allowed to attend UPT. The Leaving from the Beginning theme involved individuals who went into Active Duty knowing they were separating once their commitment was fulfilled. Three participants (1.7%) admitted that knew that they were separating before being commissioned.

V. Conclusions and Recommendations

The purpose of this study was to take a different approach in researching voluntary turnover in critically-manned career fields in the Air Force. This study tested Lee et al.'s (1999) Unfolding Model of Voluntary Turnover for former officers from the Civil Engineering (32E), Communications and Information (33S), Scientist (61S), Developmental Engineer (62E), and Acquisitions (63A) AFSCs. To do this, new data were collected via mailed questionnaires from 182 former officers who were in these critically-manned career fields. These career fields were studied because they were specifically targeted for a possible Critical Skills Retention Bonus (CSRB). This study is unique in that previous Air Force research has not used data from members after they have separated.

Discussion

In this study, nearly half of the participants' departures could be explained using the hypothesized paths in Lee et al.'s (1999) model. Of these participants, the majority was classified into Path 3 and another third was classified into Path 4b. In Path 3, a shock produces image violations that initiate the person's evaluation of both the current job and alternatives. The shocks may be explainable using the reported themes in this study. Some reported that becoming aware of the compensation offered in the civilian sector caused them to think about leaving. There is reason to believe that most officers, whether in college Reserve Officer Training Corps (ROTC) or in the Air Force Academy, have little or no knowledge of the civilian job market because have a 4 or 5 year

commitment to the Air Force. However, once on Active Duty for a couple of years, an officer would tend to become more aware of the job market via friends, job offers, or a contractor counterpart he or she may be working with. This new understanding could become a shock to an officer, which could then lead to image violations, such as the Air Force is not meeting one's personal goal of making a particular amount of money. Another shock revolving around compensation has been members' perception that military benefits such as medical care has eroded, creating a shock to some former members, which led to subsequent image violations of not having the proper care their families.

For many former members, not getting their desired assignments started the decision-making process to separate. Getting a non-volunteer assignment, not getting a joint-spouse assignment, or just having to move was considered a shock. This led to image violations of personal values, such as not being at a desired location or not being with a spouse. The birth of a child was a shock to some individuals, which led to new values in life. These new values caused image violations because raising a family was more important than before and these individuals felt that military life was not conducive to this. In reference to the policy theme, many former members perceived that it would be difficult to get promoted to rank of Colonel and above because many of the high-ranking officers in their career fields were from the flying community, rather than the engineering community. This revelation was a shock, which led to image violations of perceiving the difficulty of reaching the goal of getting promoted to higher ranks. For these career fields, many individuals experienced shock when they were forced into a job they did not want. The job was unattractive because they would not be able to use their

skills (image violation). For some former members, a particular breach of ethics by their supervisor constituted their shock, which caused these members to leave. These leavers felt that their personal values were not in line with the values of those appointed over them.

In Path 4b, low levels of job satisfaction were spawned from image violations that caused individuals to evaluate alternatives. The image violations may be explainable using the reported themes in this study. Many former members expressed that promotion system prompted their decision to leave. Not being able to get promoted faster was not in line with their personal goals, an image violation, which led to low job satisfaction. The lack of a meritocracy was also an image violation; former members did not approve of the fact that everyone got promoted the same way, regardless of job or performance. Many were dissatisfied with the job they had or the lack of experience they were getting. This perceived lack of career progression was not going to help these individuals reach their personal goal of having a career they envision. To some individuals, the type of leadership they experienced led them to believe that their values were not in line with the values of the Air Force. They were dissatisfied with leadership and could not see themselves becoming what they perceived what the Air Force thought to be a good leader.

Implications for the Air Force

The average age of those separated was 28.2 years old and the average experience was 6.3 years on Active Duty. All former officers in the career fields in this study had technical degrees in disciplines such as civil engineering, mechanical engineering, electrical engineering, aeronautical engineering, astronautical engineering, nuclear

engineering, chemical engineering, computer science, operations research, or physics. Almost three-quarters of participants had at least a master's degree, which shows that these former members were highly motivated and had continued to pursue higher education. These attributes would make these officers very attractive to the civilian sector. To most firms, these officers would be desirable candidates to hire because these officers were still young, require minimal training, and already had experience (both technical and leadership). More than 80% of the participants maintain jobs that would be classified as knowledge workers in civilian professions. Knowledge workers are those who have jobs or critical skills that are not easy to produce or reproduce and are highly valued in the civilian sector. The Air Force needs to realize that if members do not feel valued, they will go somewhere where they feel they are valued.

It is understandable that the Air Force cannot compete toe-to-toe with the civilian sector as far as pay is concerned. However, the Air Force would be encouraged to show that these officers were valued. The schools of thought that "people should stay in if they are patriotic," "it is their duty," or "look at what the Air Force has done for these people" may not be completely realistic. By fulfilling one's Active Duty Service Commitment (ADSC), an officer was patriotic, fulfilled his or her duty, and has done a lot for the Air Force and should not feel guilty at all about separating. In this study, almost half of the participants still have military affiliation, such as the Reserves or ANG. So there are other reasons why people separate besides not liking the military.

While there may be some constraints that prevent the leadership from retaining those who separate for financial reasons only, the Air Force might consider addressing other themes to help curb voluntary turnover. For promotion, the Air Force might

reconsider the Below The Zone (BTZ) promotions to the rank of Major or promote faster based on performance. To address benefit concerns, the Air Force might look into the problems that members have with Tri-care. The data also suggested that the Air Force might be more flexible and personal with the assignment system. One step might be the assignment of more personnel to AFPC so there is not one person trying to manage all of the Company Grade Officer's assignments. Most importantly, policies should allow for the members to use the technical skills they acquired on the job. Probably the most effective way to battle turnover is through commander or supervisor intervention. For young officers, their commander or supervisor has a large influence. While some members may say that they are separating, they still have 4 or 5 years to think about it due to the ADSC. During this time, commanders or supervisors can positively influence members to help keep members from separating.

Implications for Researchers

As mentioned previously, this study was unique in that data were gathered from individuals after they separated from the Air Force. While other studies based on data gathered from individuals at the time of separation may be helpful, this study provided valuable insight because it was based on data from those who had a chance to reflect and take their new life into consideration. Moreover, Lee et al.'s (1999) Unfolding Model of Voluntary Turnover was able to explain almost half of the sample in this study, which is far greater than most other turnover models (4-5% explainable). This model could help researchers explain higher percentage leavers in their particular organization than researchers could explain before, and see what specific areas to address to mitigate voluntary turnover.

Limitations

This study was based on five specific career fields in the Air Force. This data may or may not accurately reflect other career fields or other services. Other career fields may not have the dilemma of members not using their technical skills. The culture and mentality of the Army, Navy, or Marines are very different than that of the Air Force. People may join and serve for different reasons. This data were gathered from those who graduated from college since 1990. This data may not accurately reflect field grade officers and above. Also most of the participants in this study were graduates from the Air Force Academy because of the difficulty to acquire the addresses. The difference between Academy graduates and other commissioning sources is the undergraduate program. While differences between these officers are arguable, the main difference that most will agree upon is the amount of military training received in the undergraduate program where many might say that Academy graduates would have more military training through their programs. Couple this with 5 years of Active Duty, Academy graduates may feel a slightly higher attachment with the Air Force. Academy graduates do constitute a high percentage of Air Force officers, so this sample would still reflect a high number of leavers. The human error could be a factor due to the quality of the instrument or participant recall. The instrument did have some questions that had incorrect available responses (such as "yes" or "no" for "How many *acceptable* alternative jobs did your search produce before you separated?" and "How many *total* job offers did you have before you separated?"), however, all participants did fill in the appropriate answer. Some of the questions could have been more clear to avoid confusion. For participant recall, I believe the responses were accurate representations of

how the participants felt. The moment of separation from the Air Force was probably a decision not to be made impulsively, and was a turning point in most people's lives, so recall may be an issue of minimal consequence.

Future Research

With improvement and revisions, this model could have more explanatory power. If Paths F1 and F8 were added, this modified model could explain more than 80% of those who separated. Path F1 involved an individual who experienced shock, engaged in a previous plan of action, and searched and evaluated job alternatives before separating from the Air Force and Path F8 involved an individual who left after only engaging in a previous plan of action. More research is needed to see if these are viable separation paths for military members or if more items are needed to further develop these paths. In addition, the Air Force has recently implemented the CSRB for the career fields in this study and has developed a Thrift Saving Plan (TSP) that allows tax free savings for retirement. A longitudinal study would be helpful to see if these measures have influenced retention. Moreover, the Unfolding Model could be tested on other groups to help the model's validity. Future research could include former members from other career fields, current members on Active Duty, current and former Enlisted members, current and former Civilian members, and current and former members from the other Armed Services (Marines, Army, and Navy).

Retention Strategies

While the Air Force may be weighing different strategies, civilian firms have been employing retention strategies to help keep knowledge workers in their

organizations. Strategies such as job sculpting, career planning, and team building are strategies civilian firms use and the Air Force could find helpful.

Job Sculpting. Butler and Waldroop (1999) found that exceptional employees do not necessarily leave organizations because of more money or for the sake of moving. They found that many managers did not realize that even though an individual excels at his or her job does not mean he or she is satisfied with it. Many highly skilled professionals will stay with an organization only if their job matches their deeply embedded life interests. Deeply embedded life interests do not necessarily determine what people are good at, but drive what makes them happy. For many military members in the career fields in this study, using the critical skills they learned in their undergraduate programs or on the job might constitute their deeply embedded life interests. Job sculpting is matching people to jobs that allow their deeply embedded life interests to be expressed. This strategy is challenging in that it requires the manager to undertake the role of both detective and psychologist, but it will increase the chance of retaining talented people. Job sculpting is difficult in that many people are not fully aware of their own deeply embedded life interests. Some individuals may have set forth in a particular career path because it was recommended to them or because it was something "they were good at." Others follow a path of least resistance, whether it was based upon the pressure from their parents or the convenience of the situation. Many initially choose a path based upon financial reward. Whatever the reason, many do not know what kind of work will make them happy until midlife. Butler and Waldroop believed that retention is low because many managers assume that excellent employees were satisfied with their jobs. The methods used in filling jobs and the involvement of

the human resources (HR) department are other reasons career development can go wrong. Life interests are rarely taken into account when placing talented employees into positions. Usually, when HR handles career development, the manager is cut out of the process.

Job sculpting begins when managers identify each employee's deeply embedded life interests (Butler & Waldroop, 1999). When it is not obvious, the manager needs to probe and observe. While job sculpting may seem challenging, a good manager already plays the role of psychologist intuitively. A manager should be willing to help sculpt employees' careers in an effort to hold onto talented people. To many, the most important thing may not necessarily be money but whether a position will move their long-term careers in a particular direction. Many firms have found a competitive advantage by emphasizing their commitment to career development. Effective performance reviews help job sculpting in discussing past performance as well as future plans. When job sculpting, the manager needs to listen carefully to his or her employees' concerns when they describe what they liked or disliked about their jobs. Along with listening, managers can have employees partake in a more active role in job sculpting by writing down things like assessment of accomplishments and goals before the meeting. If the employee does not have a good idea of his or her deeply embedded life interests, the manager and the employee will still have a starting point for discussion, ultimately leading to short and long-term goals. Upon learning a talented employee's deeply embedded life interests, the manager needs to customize the next work assignment accordingly. Sometimes the change in assigned work may require only adding a new responsibility, while sometimes it may mean totally switching jobs. While job sculpting

may be an appropriate strategy, there are some caveats. Finding a talented employee a new job means finding someone to replace him or her in the old job. It is up to a good manager to find that an uninteresting job for one person may be perfect for someone else. Sometimes job sculpting will not accomplish what that employee wants or needs. The manager may have to make the hard decision to counsel the employee to satisfy his or her needs elsewhere. Butler and Waldroop emphasize that even though job sculpting is challenging, it is well worth the effort. To increase retention, the managers must first know the hearts and minds of the employees and then undertake the challenging but rewarding task of job sculpting that end up bringing joy to both the employee and the organization.

In the Air Force, job sculpting can happen on the macro level in putting members in the right AFSCs, or on the micro level with supervisors putting members in the right job. Putting members in the right job means putting them into jobs they will find rewarding as well as putting them in jobs where they will be able to use their skills – a theme of interest reported by the participants in this study. Job sculpting could help reduce image violations in that members are meeting personal goals, as well as improve job satisfaction in that members find the job rewarding.

Career Planning. Similar to job sculpting is career planning. John Nunn (2000) examined a large company, which used career planning to retain and develop talent. The basis of career planning is employees mapping out a career track they can understand, appreciate, and view positively. Traditional employment reviews focus on past job performance. Companies that use career planning seek to understand the employee's goals for the future and develop a track toward the employee's ideal job of the future,

while discussing how to get there, job requirements, and financial rewards. The career planning process begins with a schedule and resource list. Career planning reviews usually take place mid-year to focus on the future; the year-end reviews are reserved for reviewing past performance. Also, a resource list, which includes things like educational opportunities and job descriptions of other company jobs, is presented to the employees to help with their career planning. At the end of the meeting, the employee has a plan for the future. Results of this strategy were generally positive. In many cases, the employees and supervisors reported a strengthened sense of unity and a deeper understanding of each other's business goals and abilities. Employees were pleased with the company's efforts to invest in their careers, therefore had deeper trust that the company had their best interests in mind. Results have shown that retention increased, showing that the companies' efforts in creating an environment that is concerned with their employee's careers and interests have made a difference. As a result of these efforts, employee trust, morale, and satisfaction have increased significantly.

For some career fields in the Air Force, the path to making the rank of Colonel and above is very unclear. Career planning might help reduce this. Many former members did not clearly see a way to the higher ranks. Career planning could be perpetuated with a supervisor or commander showing his or her subordinates different paths one may take in order to advance in the Air Force. Career planning would help reduce image violations in that members would be able reach personal goals while these goals aligned with the Air Force's goals.

Team Building. Team building is a concept long used by troops in war and can be effectively used in organizations to boost morale, profits, and retention. Whether it is the

U.S. Army or U.S. Steel, the strategy of team building can carry over into aspects of an organization's business, employment, and decision-making. Teams that utilize their knowledge and work together tend to be the most effective. James Lennox (2001) presented a five-step process to building a team. The first step is having a goal and the team members knowing their roles. The key lies in how the team is built, not just how the team leader exercises his or her authority. Having the proper tools is the next step in building an effective team. Some brainstorming can make sure ensure that the team has the right tools to move forward, instead of holding them back. People make a company, but the right tools make the company even better. Team members need proper training to be proficient with the skills required to execution of their jobs. For job descriptions, outline the skills needed and responsibilities required for a particular position. A winning environment is crucial to the team's success rate, attitude, morale, and retention. The last step to team building is continuing support by the team members. In an effectively constructed team, each member works toward a goal, and ultimately the organization will succeed. Once a team is moving forward, team leaders need to look to the future and begin to structure new goals and team member roles. By covering these steps ahead of the team, leaders will be ahead of the curve, planning for the future instead of dealing with the present.

In the Air Force, supervisors and commanders should be team building. Team building can reduce shock in that members will have the tools and training to do their jobs. Image violations may be reduced with members realizing immediate organizational goals and working to meet those goals. Members will see purpose to the jobs they are doing, and not find their job as insignificant or a waste of time.

An Example of Retention in the Military. Commander Mike Abrashoff (2001) took a Navy ship full of disenchanted sailors and turned it into the pride of the Pacific fleet. His approach was very different from the typical one taken by most other military commander. When he first took command, he saw how sailors onboard the USS Benfold thought that they could not get out of the Navy fast enough. Abrashoff (2001) realized that he could just endure the retention problem or do something about it. He started by changing himself. He had to become a different leader. He realized that the present Navy is much more complex and technical than the past; no one individual has a monopoly on a ship's skills and brainpower. He knew he had a large collection of creativity and skills on that ship that just needed to be released. He needed to provide vision and values and then guide, coach, and even follow his people. The most substantial change Abrashoff made was making himself listen more. He found that by listening to his sailors, he slowly gained their respect. He also found that by listening, real and important issues were brought to light. For example, one sailor brought to Abrashoff's attention how bolts made from ferrous metal quickly oxidized and streaked the ship with rust stains. The sailors had to paint the ship every other month because of this. Abrashoff immediately invested in non-ferrous bolts. Now the ship gets painted once a year. The money saved from the paint went towards a learning center on the ship. As it turns out, non-ferrous bolts became standard throughout the Navy. While Abrashoff gave many examples of how he changed himself into a different leader, the bottom line is that his leadership was enough to increase retention on a previously "sinking" ship. This is an example of commander of supervisor intervention that could happen to help retention.

Conclusion

The purpose of this study was to make strides in developing a model that could explain a large portion of leavers from the Air Force in critically-manned career fields. This study found a model that explained almost half of the sample tested. With future research, this model can explain more. With an improved model, future research may be able to see which path Active Duty members currently are following. With this, the Air Force can take specific measures in curbing voluntary turnover. Many strategies have been developed and tested with success. It is up to the manager to determine what will work best for the organization and member, understanding the qualitative data in this study suggested a number of strategies the Air Force may use, such as job sculpting and career planning. Whatever strategy the Air Force takes, it will have to start with supervisor or AFPC interventions, for these entities appear to have the most direct influence in turnover.

Appendix A: Lee et al.'s (1999) Items From Questionnaire

Items, Classification Rules, and Response Formats

Shock

An appropriate answer to at least one of the following indicated shock. Responses were open ended, except for those for items 1, 3, and 4, which were yes/no.

1. Was there a single particular event that caused you to think about leaving? 2. Please describe that event. 3. If you accepted a job offer you had in hand, was it originally an unsolicited offer or inquiry? (Please answer only if you had a job offer in hand.) 4. Was there a particular event or series of particular events related to litigation that influenced your decision to leave? If yes, please describe briefly.

Script

An appropriate answer to at least one of the following indicated an engaged script. Responses were yes/no for item 1 and on a five-point Likert scale for items 2 and 3 (1, strongly disagree; 5, strongly agree).

1. If you accepted a job offer you had in hand, was it originally an unsolicited offer or inquiry? (Please answer only if you had a job offer in hand.) 2. I have left a job before for essentially the same reasons (i.e., very similar circumstances). 3. At the time I left my job, I had already determined that I would leave the firm IF a certain event were to occur (e.g., being accepted to graduate school).

Image Violation

An answer of 1 or 2 to at least one of the following indicated violation. Responses for items 1–4 ranged from 1, not compatible, to 5, compatible, and those for items 5–8 were from 1, strongly disagree, to 5, strongly agree. For Hypothesis 3, these items were reverse-coded.

1. How compatible were your *personal values/ethics* with those of your former firm? 2. How compatible were your *professional values/ethics* with those of your former firm? 3. How compatible were your *personal goals* with those of your former firm? 4. How compatible were your *professional goals* with those of your former firm? 5. If I had stayed, I would have been able to achieve most of my career goals. 6. If I had stayed, I would have been able to achieve most of my personal goals. 7. At my former firm, my career was progressing as I expected. 8. At my former firm, my personal goals were progressing as I expected.

Job Satisfaction

A 1 or 2 answer to at least one of the following indicated dissatisfaction. Responses for all items ranged from 1, very dissatisfied, to 5, very satisfied ($\alpha = .76$).

1. At your former firm, how *satisfied* were you with: (1) the supervision you received, (2) firm as an employer, (3) career opportunities, (4) financial rewards, (5) your coworkers, (6) nature of the work, (7) recreational activities, (8) fringe benefits (e.g., vacation, holiday time, insurance coverage, retirement plans, sick leave, family leave)? 2. At your former firm, how satisfied were you with the work environment related to: (9) generating new client business, (10) competitive pressures, (11) autonomy of the work, (12) pressures at work, (13) time flexibility?

Search

An appropriate answer to at least one of the following indicated search. Items 1 and 2 had yes/no responses, and item 3 was answered on a Likert scale (1, no search, to 5, very comprehensive search).

1. Did you have at least one job offer in hand when you decided to leave? 2. If you didn't have a job offer in hand when you actually left, did you believe that getting an offer was very likely? 3. Before you left the firm, how comprehensive was your job search for another job (e.g., did you gather lots of information on other job opportunities or search on a daily basis)?

Evaluation

An answer of yes to at least one of the following indicated evaluation of job alternatives. 1. After your first thoughts about leaving, did you evaluate any *specific* job alternatives before deciding to leave? 2. After your first thoughts about leaving, did *general* job availability affect your decision to leave (e.g., you were pretty sure you could get another job, though you didn't have a specific job in mind)? 3. In making your final decision to leave, did you seriously consider nonwork options (e.g., staying at home, returning to school, taking a sabbatical)? If you responded yes, please indicate the type of nonwork option you actually pursued.

Job Offers

An appropriate answer to at least one of the following indicated offers. Items 1–5 were answered yes/no, and items 6 and 7 were filled in.

1. Was an unsolicited job offer or inquiry the event that first lead you to think seriously about leaving? 2. Did you have at least one job offer in hand when you decided to leave? 3. Did you ultimately accept a job offer that you had in hand? (Please answer only if you had a job offer in hand.) 4. If you accepted a job offer you had in hand, was it originally an unsolicited offer or inquiry? (Please answer only if you had a job offer in hand.) 5. If you didn't have a job offer in hand when you actually left, did you believe that getting an offer was very likely? 6. How many *acceptable* alternative jobs did your search produce before you left your former firm? How many *total* job offers did you have before you left your former firm?

Thomas W. Lee is a professor of human resource management and organizational behavior at the University of Washington. He earned his Ph.D. in organizational studies at the University of Oregon.

Appendix B: Turnover Questionnaire

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY (AETC)

MEMORANDUM FOR FORMER MEMBER

FROM: AFIT/ENV BLDG 640
2950 P. Street
WPAFB, OH 45433-7765

Subject: Request Survey Completion

Reference: Lee, T.W., Mitchell, T.R., Holtom, B.C., McDaniel, L.S., & Hill, J.W. (1999). The Unfolding Model of Voluntary Turnover: A Replication and Extension. *Academy of Management Journal, 42*, 450-462.

1. We need your help! We are conducting a study to investigate voluntary turnover of Air Force officers in critically manned career fields. Specifically, Air Force officers in the Civil Engineering (32E), Communication and Information (33S), Scientist (61S), Developmental Engineer (62E), and Acquisition Manager (63A) career fields are currently experiencing a decrease in the manning of authorized Captain and Majors. To gain a better understanding of why professionals in these career fields are leaving the service, we would like you to complete the attached questionnaire that will help us understand your decision to leave the service—it should take no more than 20 minutes.

2. The data collected from your questionnaire will be combined with data from active duty officers in the same career fields so that we can further develop an Unfolding Model of Voluntary Turnover. We hope this model and comparison between those that have chosen to leave and those that are still on active duty will guide the development of better personnel management strategies, facilitating the retention of officers serving as engineers and scientists.

4. We would like to thank you in advance for your help. Retention of officers is one of the Department of Defense's greatest challenges. Your inputs will provide invaluable insight into this issue. The point of contact for this survey is Captain Jeffrey Lin, AFIT/ENV, DSN 785-3636, ext. 6207, commercial (937) 255-3636, email Jeffrey.Lin@afit.edu.

DANIEL HOLT, Major, USAF
Instructor of
Graduate School of Engineering and Management
Air Force Institute of Technology

Attachment
Survey

TURNOVER QUESTIONNAIRE

Air Force Institute of Technology

DEPARTMENT OF THE AIR FORCE
AIR FORCE EDUCATION AND TRAINING COMMAND (AETC)

Dear Team Member

Please take a few minutes to complete this survey about your decision to leave the Air Force. Although your participation is voluntary, we need your feedback to understand how you felt about the Air Force and what guided your decision to leave. We will use this information to help us fine-tune our retention programs while meeting Air Force goal to maintain an acceptable level of retention.

Sincerely,

Jeffrey H.S. Lin, Capt., USAF
AFIT Student

Conducted by the Air Force Institute of Technology.

DISCLOSURE DOCUMENT
A Study of Voluntary Turnover of AF Officers

Purpose of Study. This research is being conducted by Jeffrey H.S. Lin, Captain, USAF, a graduate student in Engineering and Environmental Management at the Air Force Institute of Technology (AFIT). Major Daniel T. Holt is overseeing this research. The purpose of the research project is to develop a model of turnover for former Air Force officers in critically manned career fields.

Confidentiality. Your participation requires you to complete a 40-item questionnaire. Disclosure of the requested information is voluntary. All your answers to the survey questions will be kept confidential. No individual responses will be reported (only aggregate findings) and your name will not appear on any of the results. No adverse action whatsoever will be taken against you, and no privilege will be denied you based on the fact you do not disclose this information. However, your participation in this study may be impacted by a refusal to provide this information.

While this information is confidential, we would like you to share your name so that we may be able to match your responses with possible future studies:

Last Name (Print) First Name Organization

Contact Information. You may withdraw at any time without prejudice, penalty, or loss. Contact the individual below:

Captain Jeffrey Lin
AFIT/ENV BLDG 640
2950 P Street
Wright-Patterson AFB, OH 45433-7765
Email: Jeffrey.lin@afit.edu
Phone: DSN 785-3636, ext. 6207, commercial (937) 255-3636, ext. 6207, mobile (937) 422-4097
Fax: DSN 986-4699; commercial (937) 656-4699

Privacy Act Statement

Authority: We are requesting disclosure of personal information. Researchers are authorized to collect personal information on research subjects under The Privacy Act-5 USC 552a, 10 USC 55, 10 USC 8013, 32 CFR Part 219, 45 CFR Part 46, and EO 9397, November 1943 (SSN).

INSTRUCTIONS

- Base your answers on your own feelings and experiences
- Read directions carefully and mark only one answer for each question
- Please write clearly making dark marks (feel free to use a blue or black ink pen that does not soak through the paper)
- Avoid stray marks and if you make corrections erase marks completely

MARKING EXAMPLES

Right ●

Wrong ⊗ ⊘ ⊙

PART I
Demographic Data

Please fill out some questions about yourself:

1. What was your age when you separated from Active Duty (years)? _____Currently?_____

2. How long were you on Active Duty (years)? _____

3. What is your gender?

   ⓪ Female
   ① Male

4. What was the highest level of education:

Attained while on Active Duty?		Currently attained?	
①	Bachelor's Degree	①	Bachelor's Degree
②	Master's Degree	②	Master's Degree
③	Doctorate Degree	③	Doctorate Degree
④	Other _____	④	Other _____

5. What was your Air Force Specialty Code (AFSC) while on Active Duty?

   ① Civil Engineering (32E)
   ② Communications and Information (33S)
   ③ Scientist (61S)
   ④ Developmental Engineering (62E)
   ⑤ Acquisition Manager (63A)
   ⑥ Other _____

6. What is your current civilian profession? _____

7. What is your current military status?

   ① None
   ② Air National Guard
   ③ Reservist

8. Did you voluntarily separate from the Active Duty Air Force?

   ⓪ No
   ① Yes

PART 2
Individual Orientation in the Organization

We would like to understand why you separated from the Air Force. The following questions will help us do that. For each statement, please fill in the circle for the number that indicates the extent to which you agree the statement is true. Use the scale below for your responses.

① Strongly Disagree	② Disagree	③ Neither Agree or Disagree	④ Agree	⑤ Strongly Agree

1.	While in the Air Force, I have left an assignment before for essentially the same reasons I separated from the Air Force.	①	②	③	④	⑤
2.	At the time I separated, I had already determined that I would leave the service IF a certain event was to occur (e.g. being accepted to graduate school, being offered a specific job).	①	②	③	④	⑤
3.	If I had stayed, I would have been able to achieve most of my *career* goals.	①	②	③	④	⑤
4.	If I had stayed, I would have been able to achieve most of my *personal* goals.	①	②	③	④	⑤
5.	In the Air Force, my *career* was progressing as I expected.	①	②	③	④	⑤
6.	In the Air Force, my *personal goals* were progressing as I expected.	①	②	③	④	⑤

① Not Compatible	② Less Compatible	③ Neutral	④ Somewhat Compatible	⑤ Compatible

7.	How compatible were your *personal values/ethics* with those of the Air Force?	①	②	③	④	⑤
8.	How compatible were your *professional values/ethics* with those of the Air Force?	①	②	③	④	⑤
9.	How compatible were your *personal goals* with those of the Air Force?	①	②	③	④	⑤
10.	How compatible were your *professional goals* with those of the Air Force?	①	②	③	④	⑤

PART 3
Job Satisfaction

For each statement, please fill in the circle for the number that indicates the extent to which you agree the statement is true. Use the scale below for your responses.

① Very Dissatisfied	② Dissatisfied	③ Neither Satisfied or Dissatisfied	④ Satisfied	⑤ Very Satisfied

In the Air Force, how satisfied were you with:

11.	The supervision you received	①	②	③	④	⑤
12.	The Air Force as an employer	①	②	③	④	⑤
13.	Career opportunities	①	②	③	④	⑤
14.	Financial rewards	①	②	③	④	⑤
15.	Your coworkers	①	②	③	④	⑤
16.	Nature of the work	①	②	③	④	⑤
17.	Recreational activities	①	②	③	④	⑤
18.	Fringe benefits (e.g. leave, holidays, medical plan, retirement plan)?	①	②	③	④	⑤

In the Air Force, how satisfied were you with the work environment related to:

19.	Amount of work assigned	①	②	③	④	⑤
20.	Competitive pressures	①	②	③	④	⑤
21.	Autonomy of work	①	②	③	④	⑤
22.	Pressures at work	①	②	③	④	⑤
23.	Time flexibility	①	②	③	④	⑤

PART 4
Search & Evaluation

For each statement, please fill in the circle for the response or write your response where appropriate.

	YES	NO
24. Was there a single particular event that caused you to think about separating?	①	②
25. If so, please describe that event:		

	YES	NO
26. Was there a particular event or series of particular events legally related that influenced your decision to leave?	①	②
27. If yes, please describe briefly:		

	YES	NO
28. Was an unsolicited job offer or inquiry the event that first led you to think seriously about separating?	①	②
29. Did you have at least one job offer in hand when you decided to separate?	①	②
30. Did you ultimately accept a job offer that you had in hand? (Only answer if you had a job offer in hand)	①	②
31. If you accepted a job offer you had in hand, was it originally an unsolicited inquiry? (Please answer only if you had a job offer in hand)	①	②
32. If you did not have a job offer in hand when you actually left, did you believe that getting an offer was very likely?	①	②
33. How many *acceptable* alternative jobs did your search produce before you separated?	_____ (Number)	
34. How many *total* job offers did you have before you separated?	_____ (Number)	

35.	After your first thoughts of separating, did you evaluate any specific job alternatives before deciding to leave?	①	②
36.	After your first thoughts of separating, did general availability affect your decision to leave (e.g., you were pretty sure you could get another job, though you did not have a specific job in mind)?	①	②

		YES	NO
37.	In making your final decision to separate, did you seriously consider nonwork options (e.g., staying at home, returning to school, taking a sabbatical)?	①	②
38.	If yes, please indicate the type of non-work option you pursued.		

① No Search	② Almost No Search	③ Some Search	④ Comprehensive Search	⑤ Very Comprehensive Search

39.	Before you left the Air Force, how comprehensive was your job search for another job (e.g., did you gather lots of information on other job opportunities or search on a daily basis)?	①	②	③	④	⑤

40. Why did you leave the Air Force? Was there anything the Air Force could have done for you to change your decision to leave the service?

MAKE ANY ADDITIONAL COMMENTS ABOUT YOUR DECISION TO SEPARATE FROM ACTIVE DUTY AIR FORCE & OTHER REMARKS ON THE BACK OF THESE PAGES

Thank you for your participation!

Appendix C: Turnover Categorization Form

TURNOVER CATEGORIZATION

Air Force Institute of Technology

Purpose:

We need your help classifying leavers from active duty Air Force. You will be given random questionnaires that were filled out by separated personnel. Attached is a short form that you will use to help classify a particular individual. Thank you very much for your time and your help is greatly appreciated.

Current research has yielded the Unfolding Model of Voluntary Turnover developed by Lee, Mitchell, Holtom, McDaniel and Hill (1999:450-462), which has identified 5 different paths a person takes to voluntary turnover. Path 1 involves an individual who leaves because a shock caused him or her to act upon a preexisting plan of action in leaving; he or she leaves without considering current attachments to the organization as well as not considering alternatives. A shock is a jarring event, positive or negative, that initiates the psychological analysis involved in quitting a job. Path 2 involves an individual who leaves because a shock prompted him or her to reconsider his or her organizational attachment because image violations have occurred; he or she leaves without a search for alternatives. Image violations occur when an individual's values, goals, and strategies for goal attainment do not fit with those of the employing organization or those implied by the shock. Path 3 involves a person who leaves because a shock produced image violations that, in turn, initiated the individual's evaluation of both the current job and various alternatives, thus leaving with search and evaluation. Path 4a involves an individual who leaves because of his or her low level of job satisfaction; he or she leaves without considering alternatives. Path 4b involves an individual who leaves because of low-level job satisfaction and after searching for other jobs and evaluating other alternatives.

Contact information:

If you have any questions about this task, contact Captain Jeffrey Lin at the number, fax, mailing address, or e-mail address.

Captain Jeffrey Lin
AFIT/ENV BLDG 640
2950 P Street
Wright-Patterson AFB, OH 45433-7765
Email: jeffrey.lin@afit.edu
Phone: DSN 785-3636, ext. 6207, Commercial (937) 255-3636, ext. 6207, Mobile (937) 422-4798
Fax: DSN 986-4699; Commercial (937) 656-4699
AFIT Mailbox: 4207

CATEGORIZATION FORM

For questionnaire #_____

Please use the attached model and this form to categorize the questionnaire. On the model, start at the left with "Shock" and indicate which path the individual took based on the answers on this form. Note for Path 1, "Image Violation" and "Satisfaction" is not applicable.

1. SHOCK Indicator: A shock is a jarring event, positive or negative, that initiates the psychological analysis involved in quitting a job.

   If the individual answered "yes" (1) to item 24, 26, or 31, circle "yes" on the model under SHOCK:

   24. Was there a single particular event that caused you to think about separating?
   30. Did you ultimately accept a job offer that you had in hand?

2. SCRIPT Indicator: A script is a preexisting plan of action and it can be based on past experience, observation of others, reading, or social expectations.

   If the individual answered with "agree" (4) or "strongly agree" (5) for items 1 or 2 OR answered "yes" (1) to item 31, circle "yes" on the model under SCRIPT:

   1. I have left an assignment before for essentially the same reasons.
   2. At the time I separated, I had already determined that I would leave the service IF a certain event was to occur.
   30. Did you ultimately accept a job offer that you had in hand?

3. IMAGE VIOLATION Indicator: Image violations occur when an individual's values, goals, and strategies for goal attainment do not fit with those of the employing organization or those implied by the shock.

If the individual answered with "disagree" (1) or "strongly disagree" (2) for items 3, 4, 5, or 6 OR answered "not compatible" (1) or " less compatible" (2) to item 7, 8, 9, or 10, circle "yes" on the model under IMAGE VIOLATION:

3. If I had stayed, I would have been able to achieve most of my *career* goals.
4. If I had stayed, I would have been able to achieve most of my *personal* goals.
5. In the Air Force, my *career* was progressing as I expected.
6. In the Air Force, my *personal goals* were progressing as I expected.
7. How compatible were your *personal values/ethics* with those of the Air Force?
8. How compatible were your *professional values/ethics* with those of the Air Force?
9. How compatible were your *personal goals* with those of the Air Force?
10. How compatible were your *professional goals* with those of the Air Force?

4. DISSATISFACTION Indicator: Job satisfaction is a measure the extent to which the job provides the intellectual, emotional, or financial benefits they desire.

If the individual answered with "dissatisfied" (2) or "very dissatisfied" (1) for any of items 11-23, circle "low" or "no" on the model under SATISFACTION:

In the Air Force, how satisfied were you with:

11. The supervision you received
12. The Air Force as an employer
13. Career opportunities
14. Financial rewards
15. Your coworkers
16. Nature of the work
17. Recreational activities
18. Fringe benefits

In the Air Force, how satisfied were you with the work environment related to:

19. Amount of work assigned
20. Competitive pressures
21. Autonomy of work
22. Pressures at work
23. Time flexibility

5. SEARCH and EVALUATION Indicator: Search behaviors are the activities involved with looking for alternatives to a current job and the evaluation of those alternatives.

If the individual answered "yes" (1) to item 29, 32, 35, 36, or 37, OR answered "comprehensive search" (4) or "very comprehensive search" (5) to item 39, circle "yes" on the model under SEARCH AND/OR EVALUATION OF ALTERNATIVES:

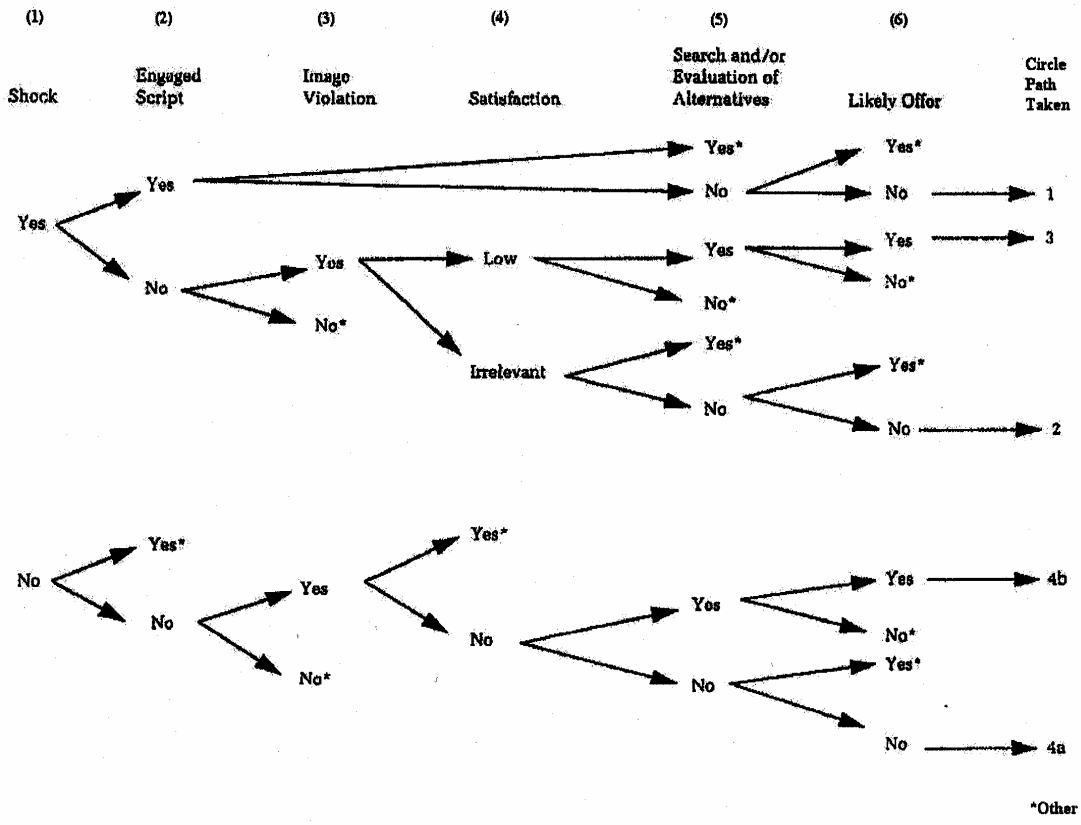
29. Did you have at least one job offer in hand when you decided to separate?
32. If you did not have a job offer in hand whey you actually left, did you believe that getting an offer was very likely?
35. After your first thoughts of separating, did you evaluate any specific job alternatives before deciding to leave?
36. After your first thoughts of separating, did general availability affect your decision to leave?

6. JOB OFFER Indicator:

If the individual answered "yes" (1) to any of items 28-32, circle "yes" on the model under JOB OFFER:

28. Was an unsolicited job offer or inquiry the event that first led you to think seriously about separating?
29. Did you have at least one job offer in hand when you decided to separate?
30. Did you ultimately accept a job offer that you had in hand?
31. If you accepted a job offer you had in hand, was it originally an unsolicited inquiry?
32. If you did not have a job offer in hand whey you actually left, did you believe that getting an offer was very likely?

The Unfolding Model of Voluntary Turnover[a]



[a]An asterisk (*) indicates that the route is not classifiable and that it represents a theory falsification—a way in which an individual could leave an organization that would not be part of one of the model's paths.

Thank you for your participation!

Reference:

Lee, T.W., Mitchell, T.R., Holtom, B.C., McDaniel, L.S., & Hill, J.W. (1999). The Unfolding Model of Voluntary Turnover: A Replication and Extension. *Academy of Management Journal, 42*, 450-462.

Appendix D: Survey Approval and Mailing Process

Survey Approval Process

1. For AFIT approval, I submitted the Human Subject Research Review (HSRR) Form (Appendix E) to:

   Gary M. Koenig, P.E., Research Grants Engineer
   AFIT/ENR
   Bldg 640, Rm 103

2. For Institutional Review Board (IRB) approval, I submitted the Survey Instrument (Appendix B), Protocol Form (Appendix F), and Informed Consent Document (ICD; Appendix G) to:

   Helen Jennings, Human Use Administrator
   AFRL/HEH
   Bldg 33, Area B
   (937) 255-0311 x232

3. Note: IRB may exempt the ICD if the survey in anonymous. Approval from IRB at Appendix H.

4. If the sample involves Active Duty military members, the survey also requires AFPC approval to be submitted through Beverly A. Houtz, Institutional Analysis and Evaluations Officer, AFIT/RPX.

Survey Mailing Process

1. Mailing included envelope for materials, cover letter (Appendix B), Survey Instrument (Appendix B), and Business Reply Envelope.

2. Envelope for materials

   a. Sender label must appear exactly as follows:

      DEPARTMENT OF THE AIR FORCE
      AFIT/ENV
      BLDG 640
      2950 P STREET
      WRIGHT-PATTERSON AFB OH 45433-7765
      OFFICIAL BUSINESS

      Note all capital letters, no commas, and official business footer.

b. Recipient label must appear as follows:

JOHN SMITH
123 MAIN STREET
ANYTOWN AR 12345

Note all capital letters and no commas.

3. For copying cover letters and survey instruments, I submitted DD Form 843 (Requisition for Printing and Binding Service) to DAPS, Area A, Bldg 281 (Appendix I).

4. For Business Reply Envelopes:

   a. Format must comply with United States Postal Service (USPS) guidelines (Appendix J).

   b. For approval, Camera Copy (Appendix K) must be submitted on size 11"x17" paper to:

Linda D. Snow, Information Management
88CG/SCCM
Bldg 767, Area B
(937) 904-8204

Note: Electronic copy was received from Gregory A. Smith, AFIT/SCBY.

   c. Printing may be accomplished through DAPS. For this study, printing was accomplished through Prime Digital Printing in Dayton, Ohio due to time constraints.

- Printing must appear exactly as appears in USPS guidelines, preferably on white legal-sized envelopes.

- Prime Digital Printing was lowest price from the local area.

Appendix E: Human Subject Research Review Form

Date: 23 July 2002

Title of Research: A Study of Voluntary Turnover of AF Officers in Critically Manned Career Fields

Principal Investigator

Name: Jeffrey Lin, Capt
Office Symbol: ENV email: jeffrey.lin@afit.edu

Purpose of the Human Subject Research Review Form: Federal law mandates that an Institutional Review Board (IRB) review all experimental protocols involving human subjects. Please complete the below four questions in regards to the above research project and forward it to your reviewing official (either your faculty advisor (in the case of a student) or immediate supervisor (in the case of faculty)). Based on this review, your reviewing official will make a determination if an experimental protocol must be coordinated with AFIT/ENR and the IRB for Human Experimentation prior to the start of your research project.

Please answer the below questions:

Will your research involve human subjects? Yes

Two groups will be asked to complete a questionnaire. The first group is former officers that had the AFSCs of 32E (Civil Engineering), 33S (Communications and Information), 61S (Scientist), 62E (Developmental Engineer), and 63A (Acquisitions) and have separated from the service in the last 10 years. The second group is Active Duty members for the mentioned AFSCs with up to 10 years of service.

Will you collect personal data for your research? Yes

Questions will assess particular demographic characteristics (i.e., age and gender) as well as reasons why individuals separated from the AF.

Will any person have any additional risk as a result of the experimentation that you are planning for this research project? No

Will your research involve children, pregnant women, or prisoners? No

Action by Reviewing Official (initial either item 1 or 2):

1. Research does not involve human experimentation. *Signed* (Initials and Date)

2. Research involves human subjects. Notification of AFIT/ENR was made on *Signed* (Enter Date) and Case Number
Signed was assigned by AFIT/ENR *Signed* (Initials and Date)

This Human Subject Research Review Form will be retained on file by the AFIT/EN department for a period of 2 years after the conclusion of the research project and then destroyed.

Definitions:

Research means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizeable knowledge.

Human subject means a living individual about whom an investigator (whether professional or student) conducting research obtains

(1) data through intervention or interaction with the individual, or
(2) identifiable private information.

Appendix F: Protocol Form

FWR 2002-0044-E

1. Title: A Study of Voluntary Turnover of Air Force Officers in Critically Manned Career Fields

2. Principal Investigator: Captain Jeffrey H.S. Lin, AFIT/ENV GEE03M, 233-4097, jeffrey.lin@afit.edu

3. AFIT Thesis Advisor: Major Daniel T. Holt, AFIT/ENV, DSN: 785-3636 x4574, Comm: (937) 255-3636 x4574, daniel.holt@afit.edu

4. Medical Monitor: N/A

5. Contractor and/or Facility: N/A

6. Objective:

a. **Hypothesis**
Former AF officers in critically manned career fields will fall on a specific path in the Unfolding Model of Voluntary Turnover.

7. Impact: With this data, we will be able to address specific areas and facilitate retention.

8. Experimental Plan: We will compile a list of former Air Force officers in the 32E, 33S, 61S, 62E, and 63A Air Force Specialty Code in the last ten years. A survey will be administered to determine the breakdown of paths taken. The compiled data will be used to test the Turnover Model (Lee et al.) and see which path former members have taken. Members will fall into specific stages (constructs) in the decision process such as shock, script, image violations, job satisfaction, search for alternatives, or job offers.

9. Medical Risk Analysis: There are minimal risks to participants.

Appendix G: Informed Consent Document

INFORMED CONSENT DOCUMENT
Information Manipulation in Electronic Means of Communication

1. **Purpose of Study**

This research is being conducted by Jeffrey H.S. Lin, Captain, USAF, a graduate student in Engineering and Environmental Management at the Air Force Institute of Technology (AFIT). Major Daniel T. Holt is overseeing this research. I understand the purpose of the research project is to develop a model of turnover for former Air Force officers in critically manned career fields.

2. **Procedures**

I will take one survey, consisting of 39 questions.

3. **Risks and Inconveniences**

There are no known risks to me. All my answers to the survey questions will be kept confidential and identified by a subject code number. My name will not appear on any of the results. I understand there will be no retribution of any form from the Air Force, AFIT, or any other agencies involved in this study concerning the responses made by the participants. No individual responses will be reported. Only aggregate findings will be reported.

4. **Benefits**

a. There is no direct benefit to me for participation in this research.

b. I understand that the Air Force may gain valuable information on the retention of Air Force Officers in critically manned career fields.

5. **Alternatives**

Choosing not to participate is an alternative to participating in this study.

6. **Entitlements and Confidentiality**

I understand that this consent may be withdrawn at any time without prejudice, penalty or loss of benefits to which I am otherwise entitled. The decision to participate in this research is completely voluntary on my part. No one has coerced or intimidated me into participating in this program. I am participating because I want to. Capt. Jeffrey H.S. Lin, (AFIT, School of Engineering and Management, Phone: (937) 255-3636 ext 6207, Email: jeffrey.lin@afit.edu, Cell Phone: 937-422-4798) will be available to answer questions during the study.

_____
(Investigator)

_____
(Subject) (Date and Time)

_____
(Witness)

Privacy Act Statement

Authority: We are requesting disclosure of personal information, to include your Social Security Number. Researchers are authorized to collect personal information (including social security numbers) on research subjects under The Privacy Act-5 USC 552a, 10 USC 55, 10 USC 8013, 32 CFR Part 219, 45 CFR Part 46, and EO 9397, November 1943 (SSN).

Purpose: It is possible that latent risks or injuries inherent in this experiment will not be discovered until some time in the future. The purpose of collecting this information is to aid researchers in locating you at a future date if further disclosures are appropriate.

Routine Uses: Information (including name and SSN) may be furnished to Federal, State and local agencies for any uses published by the Air Force in the Federal Register, 52 FR 16431, to include, furtherance of the research involved with this study and to provide medical care.

Disclosure: Disclosure of the requested information is voluntary. No adverse action whatsoever will be taken against you, and no privilege will be denied you based on the fact you do not disclose this information. However, your participation in this study may be impacted by a refusal to provide this information.

Appendix H: Institutional Review Board Approval

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESEARCH LABORATORY (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

28 October 2002

MEMORANDUM FOR AFIT/ENV
ATTN: Jeffrey Lin

FROM: AFRL/HEH

SUBJECT: Approval for the Use of Volunteers in Research

1. Human experimentation as described in exempt Protocol Request (02-44) FWR 2002-0044-E, "A Study of Voluntary Turnover of Air Force Officers in Critically Manned Career Fields ", may begin.

2. In accordance with AFI 40-402, this protocol was reviewed and approved by both the Wright Site Institutional Review Board (WSIRB) Chairman on 17 October 2002, the AFRL Chief of Aerospace Medicine on 28 October 2002. A copy of the meeting minutes showing final approval will be forwarded.

3. Please notify the undersigned of any changes in procedures prior to their implementation. A judgment will be made at that time whether or not a complete WSIRB review is necessary.

//Signed 28 October 2002//
HELEN JENNINGS
Human Use Administrator

Appendix I: DD Form 843 – Requisition for Printing and Binding Services

REQUISITION FOR PRINTING AND BINDING SERVICE

FUND: [X] APPROPRIATED [ ] NON-APPROPRIATED | DATE | ACTIVITY ORDER NUMBER: ENV-02-14 | PLANT USE ONLY JOB NUMBER: 25620013

TO: DAPS, AREA A, BLDG 281

THRU: (Appropriate Printing Control Authority) AFIT/ENA, AREA B, BLDG 640, RM 102

FROM: (Originating Agency and Person to contact & telephone extension) AFIT/ENV, K. DOBBYN/5-3636, ext 4632 or 5-2998.

1. TITLE OF PUBLICATION: MEMORANDUM FOR FORMER MEMBER, REQUEST SURVEY COMPLETION SEPTEMBER 2002

2. NUMBER AND DATE: 1 of 2

3. PURPOSE, FUNCTION, ECONOMIES EFFECTED AND CONCURRENCES: COVER LETTER FOR SURVEY FOR DATA FOR GRADUATE SCHOOL THESIS

4. QUANTITY IN: [X] SHEETS [ ] SETS [ ] BOOKS [ ] PADS [ ] OTHER (Specify in Item 13)

a. PARTIAL DELIVERY REQUESTED — DATE: | QUANTITY:

b. COMPLETE DELIVERY REQUESTED — DATE: ASAP | QUANTITY: 525

5. SIZE OF PUBLICATION — a. TRIM SIZE: WIDTH 8 1/2 " LENGTH 11 " — b. FOLDED TO: WIDTH | LENGTH

6. NUMBER OF PAGES: 1

7. BINDING (Use item 13 for additional instructions): [ ] LOOSE [ ] GLUED [ ] OTHER [ ] SIDE STITCHED [ ] SADDLE STITCHED — PAD [ ] TOP [ ] LEFT [ ] RIGHT [ ] BOTTOM — SHEETS IN PAD | SETS IN PAD | SHEETS IN SET

8. PAPER STOCK

	COPIES	BASIS WEIGHT	KIND	COLOR	COLOR INK	FACE ONLY	9. PRINT HEAD TO: HEAD	FOOT	SIDE
1		20	BOND	WHT	BK	X			
2									
3									
4									
5									
6									
7									
8									
9									
10									

10. PUNCHING: NR HOLES | DIAMETER | C TO C | KIND | POSITION

11. MATERIAL DISPOSITION: HOLD | DESTROY | RETURN TO
NEGATIVES
ORIGINALS — AFIT/ENV, K. DOBBYN

12. CLASSIFICATION

13. ADDITIONAL INSTRUCTIONS. DUMMY ATTACHED YES [ ] NO [ ] (Perforations, scoring, prenumbering, etc.)

Please call Ms. Dobbyn if you have any questions. Thank you.

IA300.2V763
12 SEP 02 TDixon

14. DISTRIBUTION INSTRUCTIONS (If desired, also indicate person to be notified when job is completed.)

~~PLEASE SEND TO:~~
~~AFIT/ENV, BLDG 640, RM 204~~
~~2950 P ST~~
~~WPAFB OH 45433-7765~~

Please call for pickup

Karen Dobbyn 5-3636, ext 4632 or 5-2998

ALFRED E. THAL, JR., LT COL, USAF
Dept Head, AFIT/ENV

15. APPROPRIATION CHARGEABLE: AFIT/ENV IMPAC Card, Karen P. Dobbyn

CERTIFICATION

THAT THE USE OF MORE THAN ONE COLOR IS IN ACCORDANCE WITH DEPARTMENTAL REGULATIONS.
THAT THE ILLUSTRATIONS USED IN THIS PUBLICATION ARE NECESSARY AND RELATE ENTIRELY TO THE PUBLIC SERVICE.
THAT THIS WORK IS AUTHORIZED BY REGULATIONS AND IS NECESSARY TO THE CONDUCT OF OFFICIAL BUSINESS.

16. ORIGINATOR (Typed Name, Signature and Date): KAREN P. DOBBYN, 02/09/12

17. ACTION BY PRINTING CONTROL AUTHORITY: [X] APPROVED [ ] DISAPPROVED

TYPED NAME, SIGNATURE AND DATE: THOMAS A DIXON 12SEP02

FOR PLANT USE ONLY

18. DATE RECEIVED	19. PRIORITY	20. DATE PROMISED	21. DATE COMPLETED	22. DATE DELIVERED

23. PRESS SIZE	HOURS IN USE	NUMBER OF MASTERS	PRESS IMPRESSIONS	PRODUCTION UNITS
X				
X				
X				
X			555	
X				

RECEIPT OF COMPLETED JOB

24. RECEIVED BY	25. ORGANIZATION SYMBOL	26. DATE

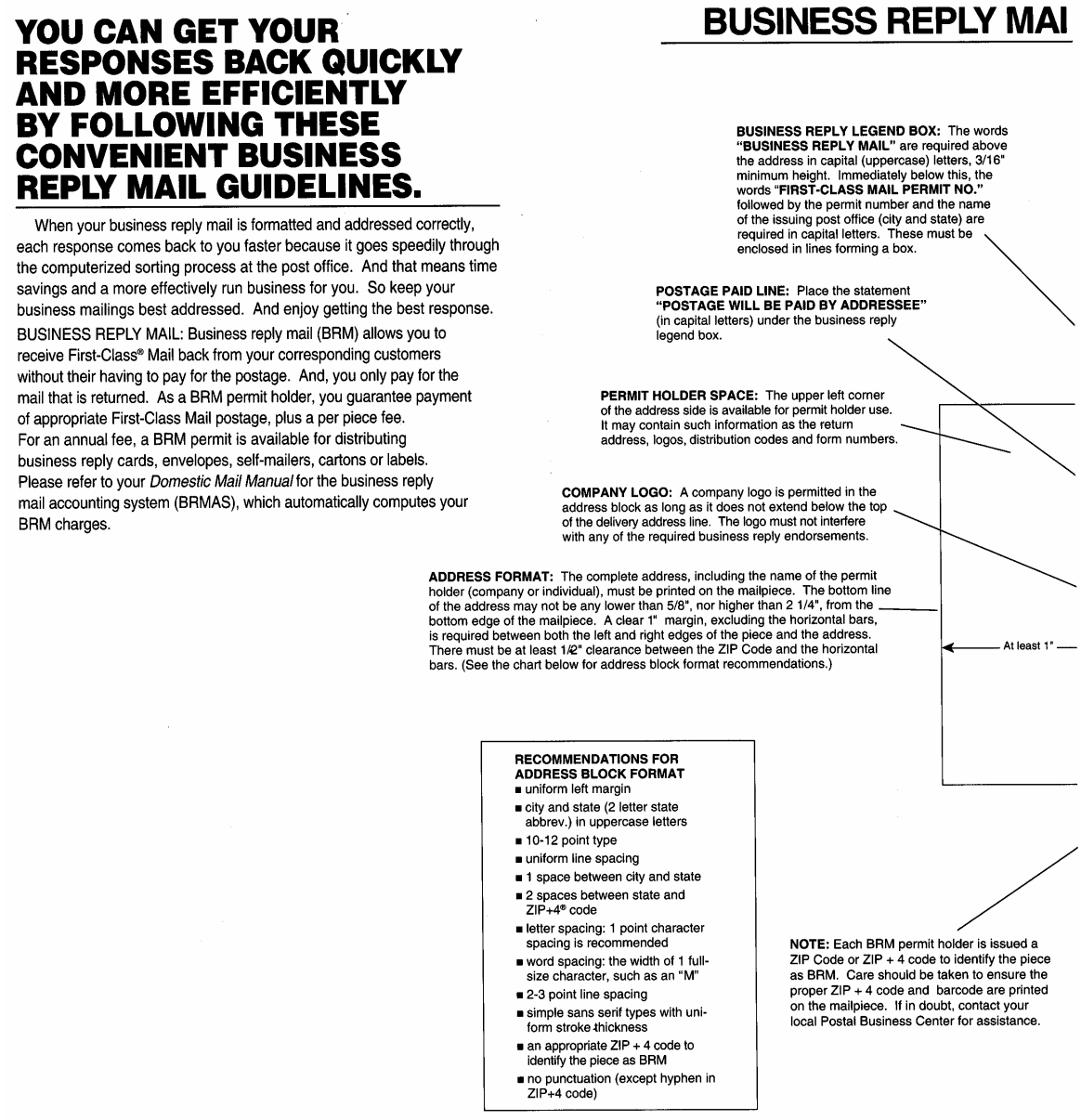
DD FORM 843, 1 JUL 55 (EF-V1) (PerFORM PRO)

Appendix J: U. S. Postal Service Guidelines for Business Reply Envelopes

YOU CAN GET YOUR RESPONSES BACK QUICKLY AND MORE EFFICIENTLY BY FOLLOWING THESE CONVENIENT BUSINESS REPLY MAIL GUIDELINES.

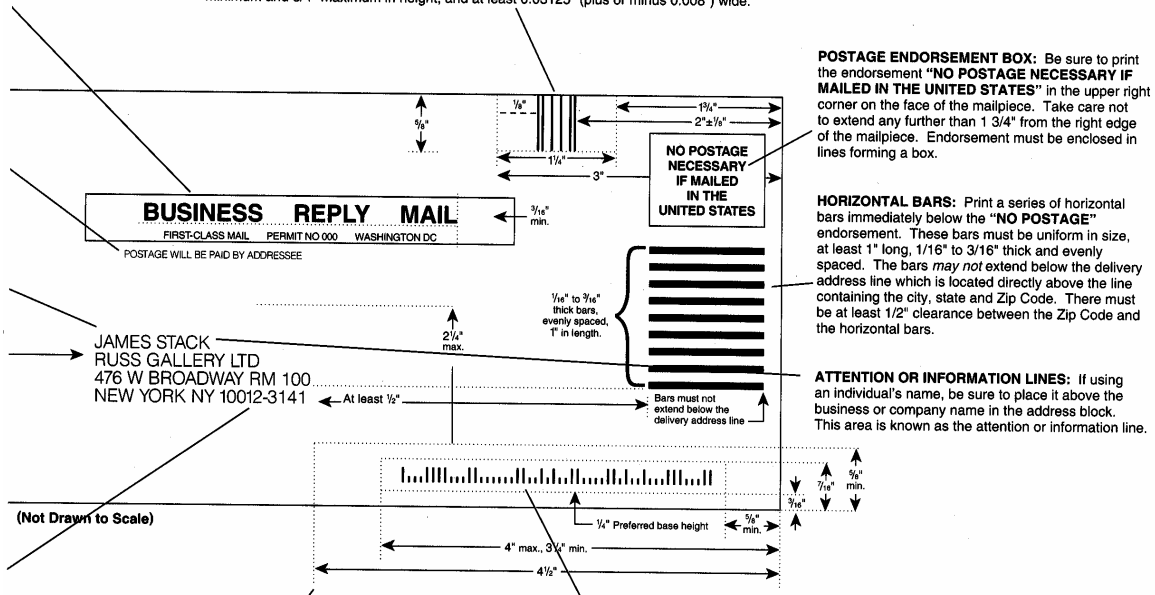
When your business reply mail is formatted and addressed correctly, each response comes back to you faster because it goes speedily through the computerized sorting process at the post office. And that means time savings and a more effectively run business for you. So keep your business mailings best addressed. And enjoy getting the best response.

BUSINESS REPLY MAIL: Business reply mail (BRM) allows you to receive First-Class® Mail back from your corresponding customers without their having to pay for the postage. And, you only pay for the mail that is returned. As a BRM permit holder, you guarantee payment of appropriate First-Class Mail postage, plus a per piece fee. For an annual fee, a BRM permit is available for distributing business reply cards, envelopes, self-mailers, cartons or labels. Please refer to your *Domestic Mail Manual* for the business reply mail accounting system (BRMAS), which automatically computes your BRM charges.



L LAYOUT GUIDELINES

FACING IDENTIFICATION MARK (FIM): A FIM is another type of postal barcode used in computerized processing of the mail. It is a pattern of vertical bars printed on the top right portion of the address side of the piece. A FIM (specifically FIM B or C) is required on all BRM postcard and letter-size mailpieces. This is required so computerized cancellation equipment can align, postmark and direct the mailpiece properly. Additionally, a FIM B is for pieces without a barcode, FIM C is for pieces with the barcode, FIM A is for courtesy reply mail only. Please consult your local Postal Business Center or the *Domestic Mail Manual* for further information on FIM types.
FIM Location: A FIM clear zone must be maintained and may contain only the appropriate FIM pattern. The right boundary of this clear zone must be 1 3/4" from the right edge of the mailpiece and the left boundary must be 3" from the right edge. The top of the bars may not be lower than 1/8" from the top edge, and may extend over the top edge to the back (flap) of an envelope. The bottoms of the bars should be within plus or minus 1/8" of the bottom edge of the clear zone. The clear zone is 5/8" deep, measured from the top edge of the mailpiece. The rightmost FIM bar should be 2" (plus or minus 1/8") from the right edge of the mailpiece. FIM bars should be 1/2" minimum and 3/4" maximum in height, and at least 0.03125" (plus or minus 0.008") wide.



POSTAGE ENDORSEMENT BOX: Be sure to print the endorsement **"NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES"** in the upper right corner on the face of the mailpiece. Take care not to extend any further than 1 3/4" from the right edge of the mailpiece. Endorsement must be enclosed in lines forming a box.

HORIZONTAL BARS: Print a series of horizontal bars immediately below the **"NO POSTAGE"** endorsement. These bars must be uniform in size, at least 1" long, 1/16" to 3/16" thick and evenly spaced. The bars *may not* extend below the delivery address line which is located directly above the line containing the city, state and Zip Code. There must be at least 1/2" clearance between the Zip Code and the horizontal bars.

ATTENTION OR INFORMATION LINES: If using an individual's name, be sure to place it above the business or company name in the address block. This area is known as the attention or information line.

SIZE STANDARDS: In order for letter mail to be compatible with computer-ized processing equipment, it must be between 3 1/2" x 5" minimum and 6 1/8" x 11 1/2" maximum. To qualify for the postcard rate, postcards must be at least 3 1/2" x 5", but no larger than 4 1/4" x 6". Larger postcard sizes are mailable; however, they are charged at the regular First-Class Mail letter rate. The thickness must be at least 0.007" and not more than 0.0095".

*If letter mail is more than 4 1/4" high or more than 6" long, it should be at least 0.009" thick.

POSTNET Barcode: A barcode is a series of tall and short bars that are printed on a mailpiece. A camera-ready barcode positive may be obtained free of charge from your local Postal Business Center.
POSTNET Barcode Location: The location of the barcode is on the address side of the mailpiece within a clear read zone as indicated. This area must be free of any printing other than the barcode. The clear zone extends up 5/8" from the bottom-right edge and at least 4 1/2" leftward of the right edge of the mailpiece. **Within the barcode clear zone, the leftmost bar of the barcode must be no more than 4" and not less than 3 1/4" from the right edge of the mailpiece.** The bottom, or baseline, of the barcode must be 1/4" (plus or minus 1/16") from the bottom edge of the mailpiece. The barcode must be completely within the barcode area. The delivery point barcode must not be used on BRM, but you may use an expanded barcode clear zone measuring 4 3/4" from the right edge of the piece if more convenient.

INK/PAPER COLORS AND TYPESTYLES:
Not all colors of paper and/or ink and typestyles are compatible with automated equipment. Please contact your local Postal Business Center or your postmaster for guidance on ink, paper color, and readable typestyles.

NOTE: Be sure to take your BRM samples to your local Postal Business Center or post office for advice and approval. Take advantage of this service—it could save you valuable dollars. To ensure prompt, efficient processing and delivery, *all* mailpieces must be (a) rectangular in shape, where length divided by height is not less than 1.3 nor more than 2.5; and (b) sealed or secured on all four edges so that they can be handled by machines. A surcharge is assessed for nonstandard mailpieces. Please consult your local Postal Business Center or the *Domestic Mail Manual* regarding these requirements.

Appendix K: Business Reply Envelope

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Vita

Captain Jeffrey H.S. Lin graduated from Jacksonville Christian Academy in Jacksonville, Arkansas in May 1993. He entered the United States Air Force Academy Preparatory School in Colorado Springs, Colorado in July 1993 and graduated in May 1994. In June 1994, he entered the United States Air Force Academy in Colorado Springs, Colorado with the 40th class. In May 1998, he graduated with a Bachelor of Science degree in Civil Engineering and was commissioned.

His first assignment was at Beale AFB, California in the 9th Civil Engineering Squadron as the Squadron Section Commander, as a Design Engineer, and as the Chief of Construction Management. While stationed at Beale, he deployed overseas in December 2000 for 3 months in support of Operation Southern Watch at Prince Sultan Air Base, Saudi Arabia as the Mechanical Engineer with the 363rd Expeditionary Civil Engineering Squadron. In August 2001, he entered the Graduate School of Engineering and Management, Air Force Institute of Technology. Upon graduation, he will be assigned to the 51st Civil Engineering Squadron at Osan Air Base, South Korea.

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Lin, Jeffrey, H.S., Captain, USAF

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13. SUPPLEMENTARY NOTES

14. ABSTRACT

Turnover in the Air Force has always been a subject of importance. As the costs associated with losing an individual are high, it would be in the best interest of an organization to understand the main reasons for voluntary turnover in order to facilitate retention. Current research has yielded the Unfolding Model of Voluntary Turnover developed by Lee, Mitchell, Holtom, McDaniel and Hill (1999), which identified 5 different paths people take as they voluntary leave organizations. This research effort tested to see if this model held true for a group of former Air Force officers from career fields experiencing low manning levels (32E, 33S, 61S, 62E, and 63A), finding that 47% of the participants fell into the predicted categories. However, more could be explainable with additional paths. With this data, specific areas in facilitating retention were addressed.

15. SUBJECT TERMS

Retention, Personnel Retention, Personnel Management, Voluntary Turnover, Unfolding Model, Military Retention, Military Turnover

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Daniel T. Holt, Maj, USAF (ENV)
U	U	U	UU	105	19b. TELEPHONE NUMBER *(Include area code)* (937) 255-3636, ext 4574; e-mail: daniel.holt@afit.edu

Standard Form 298 (Rev. 8-98)
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